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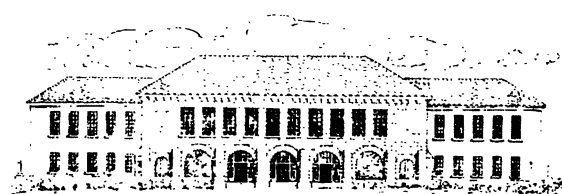
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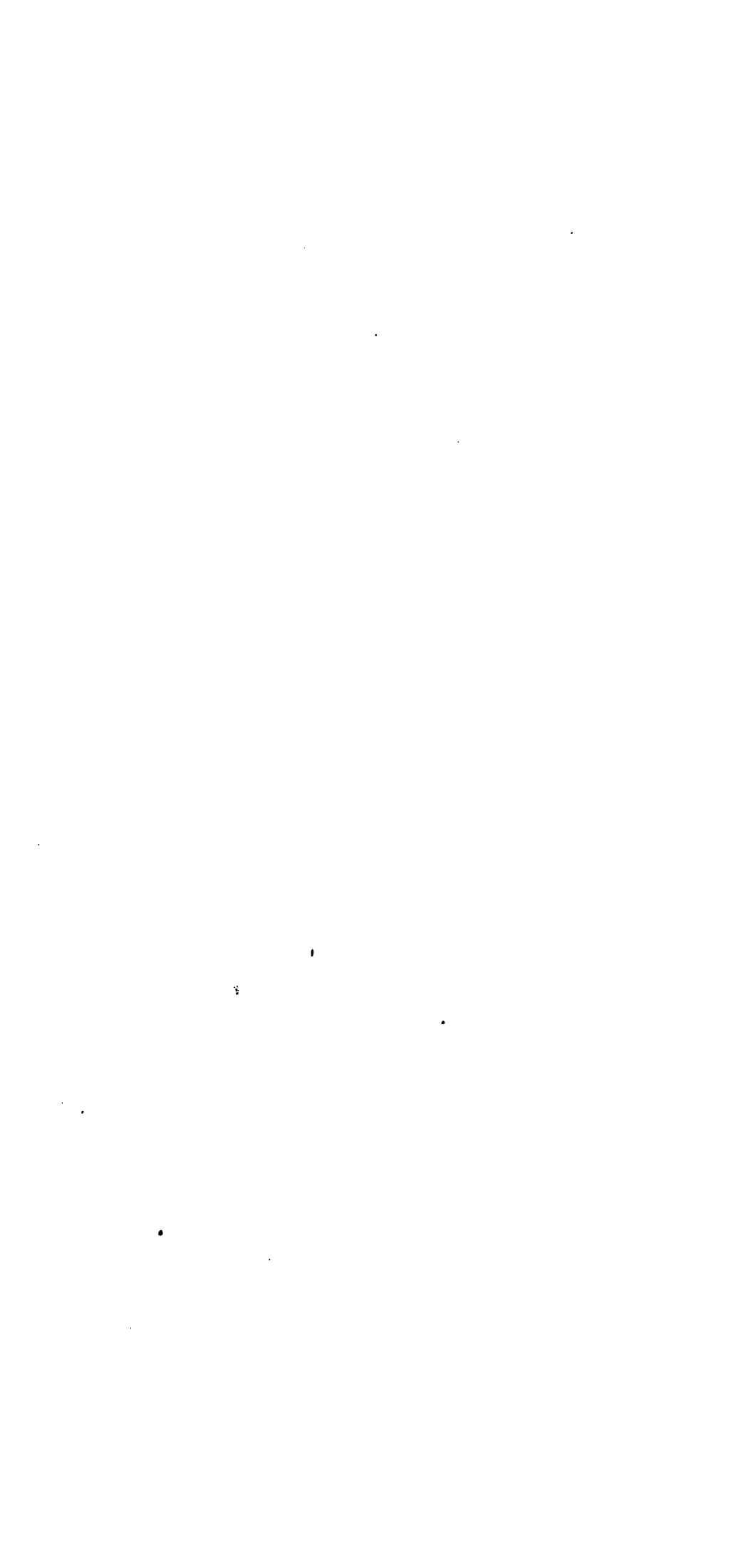
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PROCEEDINGS
OF THE
TWENTY-SIXTH CONVOCATION

OF THE
UNIVERSITY OF THE STATE OF NEW YORK,

Held July 10th, 11th and 12th, 1888.

CUBBERLEY LIBRARY

BEING A PART OF THE 103d ANNUAL REPORT OF THE REGENTS OF THE UNIVERSITY.

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1888.

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APPENDIX I.

THE UNIVERSITY CONVOCATION

OF THE

STATE OF NEW YORK.

I.

Sketch of its Origin, Objects, and Plan.

Reprinted from the Proceedings of former years, by direction of the Convocation.

At a meeting of the Regents of the University, held on the 9th day of January, 1863, the reports of colleges and academies, and their mutual relations, being under consideration, the following resolution was unanimously adopted:

Resolved, That it is expedient to hold annually, under the direction of this Board, a meeting of officers of colleges and academies, and that a committee be appointed to draft a programme of business for the proposed meeting, to fix the time and place, and to make such other arrangements as they may deem necessary.

The committee of arrangement on the part of the Regents were Chancellor Pruyn, Governor Seymour, Mr. Benedict, Mr. Hawley, Mr. Clinton, Mr. Perkins and Secretary Woolworth.

The meeting was held according to appointment, on the 4th and 5th days of August, 1863. Chancellor Pruyn briefly stated the objects entertained by the Regents, which were mainly "to consider the mutual relations of colleges and academies, and to promote, as largely as possible, the cause of liberal education in our State. While it is a part of the duty of the Regents of the University to visit the fourteen literary colleges, and more than two hundred academies subject to their supervision, it is obvious that this can not be done as frequently as desirable, and that some such method as is now proposed, whereby teachers may compare views with each other, and with the Regents, and discuss methods of instruction and general modes of procedure, is alike practicable and necessary.

"A law enacted more than three-fourths of a century ago was cited, by which the University was organized and clothed with powers similar to those held by the University of Cambridge and Oxford in England.

"The University of the State of New York, though generally regarded as a legal fiction, is in truth a grand reality. The numerous institutions of which it is composed are not, indeed, as in England,

crowded into a single city, but are scattered, for popular convenience, over the entire State. It is hoped that the present meeting will more fully develop this fact, in accordance with which the officers of colleges and academies now convened are cordially welcomed as members of a great State University. It is also confidently expected that the deliberations now inaugurated will result in the more intimate alliance and coöperation of the various institutions holding chartered rights under the Regents of the University."

The Chancellor and Secretary of the Regents were, on motion, duly elected presiding and recording officers of the meeting. A committee, subsequently made permanent for the year and designated as the executive committee, was appointed by the Chancellor to prepare an order of proceedings. Among other recommendations of the committee, the following were submitted and unanimously adopted:

The Regents of the University of this State have called the present meeting of the officers of the colleges and academies subject to their visitation, for the purpose of mutual consultation respecting the cause of education, especially in the higher departments. It becomes a question of interest whether this convention shall assume a permanent form and meet at stated intervals, either annually, biennially or triennially. In the opinion of the committee it seems eminently desirable that the Regents and the instructors in the colleges and academies should thus meet, with reference to the attainment of the following objects:

1st. To secure a better acquaintance among those engaged in these departments of instruction, with each other and with the Regents.

2d. To secure an interchange of opinions on the best methods of instruction in both colleges and academies; and, as a consequence,

3d. To advance the standard of education throughout the State.

4th. To adopt such common rules as may seem best fitted to promote the harmonious workings of the State system of education.

5th. To consult and coöperate with the Regents in devising and executing such plans of education as the advanced state of the population may demand.

6th. To exert a direct influence upon the people and the Legislature of the State, personally and through the press, so as to secure such an appreciation of a thorough system of education, together with such pecuniary aid and legislative enactments, as will place the institution here represented in a position worthy of the population and resources of the State.

And for the attainment of these objects, the committee recommend the adoption of the following resolutions:

Resolved, That this meeting of officers of colleges and academies be hereafter known and designated as "The University Convocation of the State of New York."

Resolved, That the members of the Convocation shall embrace

1. The members of the Board of Regents.

2. All instructors in colleges, normal schools, academies and higher departments of public schools that are subject to the visitation of the Regents, and (by amendment of 1868) the trustees of all such institutions.

3. The president, first vice-president, and the recording and corresponding secretaries of the New York State Teachers' Association.

Resolved, That the Chancellor and Secretary of the Board of Regents shall act severally as the presiding officer and permanent secretary of the Convocation.

Resolved, That the meeting of this Convocation shall be held annually, in the city of Albany, on the first Tuesday in August at ten A. M., unless otherwise appointed by the Board of Regents. [*Amended*, in 1887, as to the time of meeting, by making it the first Tuesday after the Fourth of July.]

Resolved, That at each annual Convocation the Chancellor shall announce the appointment by the Regents, of an executive committee of seven members, who shall meet during the recess of the Convocation, at such time and place as the Regents may direct, with authority to transact business connected with its general object.

At the fourth anniversary, held August 6th, 7th and 8th, 1867, it was

Resolved, That the Regents be requested to invite the attendance of representatives of colleges of other States at future anniversaries of the Convocation.

At the fifth anniversary, held August 4th, 5th and 6th, 1868, the following resolutions were unanimously adopted:

Resolved, That there be appointed by the Chancellor, at each annual meeting, a committee of necrology, to consist of three persons.

Resolved, That it shall be the duty of each member of the Convocation to notify the chairman of the committee of necrology of the decease of members occurring in their immediate neighborhood or circle of acquaintance, as an assistance to the preparation of their report.

Resolved, That the secretary publish, with the report of each year's proceedings, the original resolutions of 1863, as they are or may be from time to time amended, together with the two foregoing, as a means of better informing the members of the Convocation in regard to its nature and the purposes of its organization.

UNIVERSITY OF THE STATE OF NEW YORK.

AN ORDINANCE RELATIVE TO THE UNIVERSITY CONVOCATION.

Passed April 11, 1879.

The Regents of the University of the State of New York declare and ordain as follows:

SECTION 1. The University Convocation hitherto existing is hereby constituted and established as the Convocation of the University of the State of New York, and shall continue to be called and known by the style of "The University Convocation." It shall consist of such members of the Board of Regents of the University and such instructors, officers and trustees of the several colleges, academies and other seminaries subject to the visitation of the Regents and constituent members of the University, as shall at the time being attend. The purpose of the Convocation shall be to secure an interchange of opinions on the subject of education and of literature, science and art, and to advance their standard in this State; to harmonize the workings of the State system of education; and by essays, treatises, discussions and resolutions, on subjects connected with literature, science and art, and with the credit, interest and welfare of the University and the institutions composing it, to recommend to such institutions and to the Regents, for their consideration, such action as may be expedient and lawful.

§ 2. The Convocation shall meet in the city of Albany, at the Capitol, on the first Tuesday after the Fourth of July, except when the Fourth occurs on Monday, in which case it shall be the second Tuesday thereafter, or at such other time and place as may be directed by the Regents. [*Amended*, in 1887, as to the time of meeting, by making it the first Tuesday after the Fourth of July.] A quorum shall consist of those present at any actual sitting of the Convocation. The Board of Regents shall always be in session during the meeting of the Convocation, with such recesses of the Regents and of the Convocation as may be expedient. The Chancellor and Vice-Chancellor and the Secretaries of the Regents shall be the presiding officers and secretaries of the Convocation, with power to substitute others to perform their duties respectively, *pro tempore*, not longer than one day.

§ 3. At the time of the Convocation shall be held the annual Commencement of the University, and such degrees as may be ordered by the Regents shall be then publicly announced and conferred by the Chancellor except when the Regents shall otherwise provide.

MINUTES OF THE TWENTY-SIXTH CONVOCATION, HELD
JULY 10-12, 1888.

ORDER OF EXERCISES.

TUESDAY, JULY 10—MORNING SESSION.

The Convocation was called to order by Chancellor Henry R. Pierson. Prayer was offered by Rev. Dr. Walton W. Battershall, of Albany.

The Chancellor, in opening the Convocation, spoke as follows:

· CHANCELLOR PIERSON'S ADDRESS.

MEMBERS OF THE TWENTY-SIXTH CONVOCATION: It has grown to be so much a matter of form, so much a matter of custom, for the Chancellor to welcome you to the Convocation, that the duty seems to have lost something of its spirit. I am not much of a formalist; yet there is no occasion in the year when I perform the mere official acts of the Chancellor, when it seems to have so much of life about it, so much energy, as the duty of welcoming this assembled body. There is so much work before us that ought to be well done. And when I see the members of this Convocation, I say we ought to voice what seems to be a public sentiment.

A distinguished member of the Convocation this morning said to me: "The Board of Regents seems like a mythical body; but the Convocation is a real body." There has been a real growth here. Those who established the Convocation were sagacious and those who have been here for the past twenty-five years, with their principles, with their energy, with their ideas of growth, with their discussions on educational subjects, have proved again and again how wise they were. I know, ladies and gentlemen, when you come to listen to the papers which have been provided, you will see that the Executive Committee has lost none of its energy of purpose, but has provided live topics for these discussions. And I trust that these discussions will be so free and so unlimited that we shall get at the truth—the living truth, which should enter into our work. We are State officers; we are the recipients of the benefactions of this commonwealth, and our service, affecting as it does the vital interests of the people, should be more perfectly performed than any other part of the State service.

It gives me great pleasure to announce to you, ladies and gentlemen, that we have made some progress during the year. In our State Museum, much has been done in increasing the collections and in arranging them for exhibition. We also note another great event,

the Legislature has made an appropriation for completing the rooms of the State Library, a department which has and ought to have great influence in this great system of education. Before another year we hope you will be able to see what you have never yet seen; to use what many of you have never yet used; the 150,000 volumes of the State Library, well selected, but in the past hard to find. We fear there may seem to have been no sufficient preparation for the purpose of giving to the scholar, the reader, the lover of learning, the opportunity to use the books of the State. I believe this is the prominent feature in the year's progress, and I emphasize it because in the future I trust to see its effect largely felt in the work of education. I am glad to observe in the schedule prepared by the executive committee, that there will be a paper read upon "Libraries," by one who believes that a library is educational. That it is not simply a row of finely bound books, placed beyond reach for idle admiration, but an educator for men who are in search of education. And for the educators of this State, we hope to have a library so well equipped that it will give the seeker for knowledge full scope for all his abilities and his research.

I will not detain you longer, ladies and gentlemen. The chairman of the Executive Committee will now present to you the committee's report, and will announce the topics to be considered and the eminent persons selected to lead the discussions. I welcome you most heartily. I await your further pleasure.

Professor N. L. Andrews, of Madison University, chairman of the Executive Committee, read the following report:

MR. CHANCELLOR AND MEMBERS OF THE CONVOCATION: The report of your Executive Committee is, for the most part, already before you, in the printed programme of exercises for this Twenty-sixth Session of the University Convocation. We have aimed to present timely, living educational questions, of as varied interest as possible for all grades of teaching, and not so many as to preclude opportunity for ample discussion. The committee have exercised their best judgment in inviting competent gentlemen to deliver addresses, read papers, and open the discussions, but it is no disparagement of those thus appointed to say that the full benefit of this occasion will be most surely secured by a free participation in the discussions on the part of the members of the Convocation in general.

Every recurrence of the annual session of this Convocation brings fresh evidence of its value to our educational work. There has long been a feeling, however, that the attendance might be increased, if our session did not so often conflict with the annual meeting of the

State Teachers' Association. It gives us pleasure to say that a change of time now contemplated by that association will make it possible for members of either body to attend the session of the other.

In the hope that the general interest of the Convocation will justify the purposes and efforts of the Executive Committee, this report is respectfully submitted.

N. L. ANDREWS,
Chairman.

Paper: "Manual Training as an Element in Public Education," by Nicholas Murray Butler, Ph. D., president of the Industrial Education Association College for the Training of Teachers, and lecturer on History and Institutes of Education, at Columbia College.

The discussion was opened by Superintendent Charles W. Cole, of Albany, followed by the Chancellor, Principal E. A. Sheldon of the State Normal School at Oswego; Principal E. H. Cook of the State Normal School at Potsdam; Professor Daniel S. Martin of Rutgers Female College, and Regent Martin I. Townsend of Troy.

AFTERNOON SESSION.

The afternoon session was called to order by the Chancellor, who called President Ebenezer Dodge, of Madison University, to the chair.

A paper upon "The Training of Teachers for the Ungraded Rural Schools" was read by Principal E. A. Sheldon, of the State Normal School at Oswego.

The discussion was opened by Commissioner Jacob H. Mann, of West Fulton, followed by Principal Lewis H. Clark, of Macedon Academy; Principal C. T. R. Smith, of Lansingburgh Academy; Principal A. C. Hill, of Cook Academy; Principal Joseph E. King, of Fort Edward Collegiate Institute; Inspector Charles E. Hawkins and by Principal E. A. Sheldon.

The following resolutions presented by Principal Sheldon at the close of his paper were adopted:

Resolved, That in the judgment of this Convocation there is a strong existing necessity for the more careful training of teachers for the rural ungraded schools.

Resolved, That a committee consisting of President Adams, of Cornell University; Principal Hill, of Cook Academy, and President Dodge, of Madison University, be appointed by this body to confer with the State Superintendent and the Board of Regents in regard to the practicability of so reorganizing the teachers classes in academies as to meet the requirements of the country schools for better trained teachers, and to urge upon the Legislature such action as may be necessary to secure the accomplishment of the object contemplated by these resolutions.

A paper: "Should the Elements of French and German be required for Admission to all College Courses?" was read by Professor H. G. C. Brandt of Hamilton College, and discussed by Professor H. S. White, of Cornell University.

A paper: "Should the Modern Languages be *substituted* for the Ancient in the College Course in Arts?" was then read by Professor Sidney G. Ashmore, Union College.

EVENING SESSION.

The evening session was opened by the Chancellor.

Professor Alexander Winchell, LL. D., of the University of Michigan, delivered the address of the evening upon "The Study of Geology as a Means of Culture."

WEDNESDAY, JULY 11 — MORNING SESSION.

The morning session was opened, the Chancellor in the chair.

The first paper of the session was read by Principal F. B. Palmer, of the State Normal School at Fredonia, upon "Should Academic Instruction be given in our Normal Schools?"

The discussion was opened by Principal J. C. Norris, of Canandaigua Academy, followed by Principal W. E. Buntin, of Ulster Academy; Principal A. C. Hill, of Cook Academy; Principal C. H. Verrill, of Delaware Literary Institute; Principal F. J. Cheney, of Kingston Academy; Principal E. H. Cook, of the State Normal School at Potsdam; Inspector C. E. Hawkins; Principal J. E. King, of Fort Edward Collegiate Institute; Principal Elisha Curtiss, of Sodus Academy; Professor J. M. Milne, of the State Normal School at Cortland; Principal D. C. Farr, of Glens Falls Academy; Principal C. T. R. Smith, of Lansingburgh Academy, and Ex-Principal N. T. Clarke, of Canandaigua.

A paper was then read by Professor Melvil Dewey, Director of the Columbia College School of Literary Economy, upon "Libraries as Related to the Educational Work of the State," which was discussed by Professor J. H. Gilbert, and Principal O. D. Robinson, of the Albany High School.

The report of the Committee on Necrology, was then presented by Assistant Secretary Albert B. Watkins, Chairman.

The Chancellor in closing the afternoon session, extend to the members of the convention a cordial invitation to meet him at his residence at 9 o'clock, Wednesday evening.

AFTERNOON SESSION.

The Chancellor opened the afternoon session, and a paper was read by Daniel K. Dodge, Fellow in Columbia College, upon "The Province of University Fellowships." The paper was discussed by President E. Dodge of Madison University, and President C. K. Adams, of Cornell University.

A paper upon "College Athletics" was then read by Russel A. Bigelow, of New York city, and discussed by Professor B. I. Wheeler, of Cornell University.

EVENING SESSION.

The Chancellor called the Convocation to order and introduced Professor E. B. Andrews, of Cornell University, who delivered an address upon "The Federal Convention of 1787."

THURSDAY, JULY 12 — MORNING SESSION.

The morning session was opened, Chancellor Pierson presiding.

The conference upon "Defects in our Present Educational Processes," was opened by Professor George M. Forbes, of the University of Rochester, followed by Principal A. C. Hill, of Cook Academy; Professor J. M. Milne, of the State Normal School at Cortland; Principal J. W. Ford, of Colgate Academy, and C. W. Bardeen, of Syracuse. The discussion was closed by President C. K. Adams, of Cornell University.

An address upon "Greek and Latin the Best Means of the Best Education To-day," was then delivered by Hon. Daniel H. Chamberlain, LL. D., of New York city.

President H. E. Webster, of Union College, presented the following resolution, which was unanimously adopted:

WHEREAS, This Convocation believes that the time has come when certain of our public libraries should be recognized as an essential part of the State system of higher education and as properly a factor with the academies and colleges in the composition of the University of the State of New York; and,

WHEREAS, To secure to the State the full advantages of such recognition, it is necessary that proper provision should be made by the State for advisory supervision and guidance of existing institutions and for stimulating the formation of new libraries; therefore,

Resolved, That this Convocation request the Regents of the University to take such action as may seem to them expedient for giving to such libraries as their official inspection shall show to be worthy the distinction, their proper place as a part of our State system of higher education.

Chancellor Pierson announced the following committees:

EXECUTIVE COMMITTEE.

Principal O. D. Robinson, Albany High School, Chairman; Vice-President E. A. Antill, Niagara University; Professor George M. Forbes, University of Rochester; Professor W. P. Coddington, Syracuse University; Principal F. S. Capen, New Paltz Normal School; Principal Leigh R. Hunt, Troy High School; Principal O. B. Rhodes, Adams Collegiate Institute.

COMMITTEE ON NECROLOGY.

Assistant Secretary Albert B. Watkins, Chairman.

Professor Edward North, Hamilton College.

Professor Daniel S. Martin, Rutgers Female College.

COMMITTEE ON ACADEMIC EXAMINATIONS.

Principal G. C. Sawyer, Utica Free Academy, Chairman.

Principal D. C. Farr, Glens Falls Academy.

Principal F. J. Cheney, Kingston Free Academy.

Principal F. K. Partington, Staten Island Academy.

Principal J. G. Wight, Cooperstown Union School.

After remarks by the Chancellor, the benediction was pronounced by President R. B. Fairbairn, of St. Stephens, College and the Convocation was declared adjourned.

REGISTER OF THE TWENTY-SIXTH CONVOCATION.

PERMANENT OFFICERS, EX OFFICIO.

Henry R. Pierson, Chancellor.
George William Curtis, Vice-Chancellor.
David Murray, Secretary.
Albert B. Watkins, Assistant Secretary.

EXECUTIVE COMMITTEE, 1888.

Professor N. L. Andrews, Madison University.
Rev. Brother Thomas, Manhattan College.
Professor F. M. Burdick, Cornell University.
Professor F. P. Nash, Hobart College.
Principal E. A. Sheldon, Oswego Normal School.
Principal O. D. Robinson, Albany High School.
Principal A. M. Wright, Waterville Union School.
Principal W. D. Graves, Delaware Academy.

REGISTERED MEMBERS.

Henry R. Pierson, Chancellor, Albany.
Martin I. Townsend, Troy.
William L. Bostwick, Ithaca.
Charles E. Fitch, Rochester.
O. H. Warren, Syracuse.
William H. Watson, Utica.
St. Clair McKelway, Brooklyn.
Willard A. Cobb, Lockport.
A. S. Draper, Superintendent of Public Instruction.
David Murray, Secretary.
Albert B. Watkins, Assistant Secretary.
Charles E. Hawkins, Inspector of Teachers' Classes.
Edward I. Devlin, Commissioner of Law Students' Examinations.
Ralph W. Thomas, Chief Clerk.
John W. Battin, Clerk.
P. Lewis Anderson, Clerk.
Columbia College — Professor Nicholas Murray Butler, Professor
Melvil Dewey, Daniel K. Dodge.
Union College — President H. E. Webster, Professor Sidney G.
Ashmore, Professor Maurice Perkins, Professor William Wells,
Professor B. H. Ripton.
Albany Medical College — Dr. Willis G. Tucker.
Dudley Observatory — Professor Lewis Boss.

Hamilton College,—Professor Oren Root, Professor H. C. G. Brandt, Professor C. H. F. Peters.

Hobart College — Professor F. P. Nash.

Madison University — President E. Dodge, Professor N. L. Andrews.

University of Rochester — Professor George M. Forbes.

St. Stephen's College — President R. B. Fairbairn.

Vassar College — President James M. Taylor, Professor LeRoy C. Cooley.

Manhattan College — Brother Thomas.

Cornell University — President C. K. Adams, Professor Benjamin I. Wheeler, Professor F. M. Burdick, Professor H. S. White, Professor George P. Bristol, Professor E. B. Andrews.

Rutgers Female College — Professor D. S. Martin.

Albany Normal School — Professor A. N. Husted, Professor W. V. Jones, Mrs. M. A. B. Kelly, Miss Kate Stoneman, Miss Mary A. McClelland.

Cortland Normal School — Principal James M. Milne.

Fredonia Normal School — Principal Francis B. Palmer.

Oswego Normal School — Principal E. A. Sheldon.

Potsdam Normal School — Principal E. H. Cook, Professor Frederick L. Dewey.

State Library — George R. Howell, S. B. Griswold.

State Museum — Director James Hall, J. M. Clarke.

State Entomologist — J. A. Lintner.

Adams Collegiate Institute — Principal O. B. Rhodes.

Albany Academy — Professor Charles B. Goold.

Albany High School — Principal O. D. Robinson, Charles A. Horne, J. H. Gilbert, A. Sanford, W. D. Goewey, C. A. Meyer, Annie M. Halpen, Mary Morgan.

Albany Public Schools — O. E. Wilson, Board of Public Instruction, Superintendent Charles W. Cole, Principals Levi Cass, E. A. Corbin, John E. Sherwood, Lewis H. Rockwell, Assistant, Emma Le Boeuf.

Amsterdam Academy — Principal C. A. Cole.

Bainbridge Union School — Principal Frederick J. Turnbull.

Bath-on-Hudson Union School — Principal Isaac M. Agard.

Binghamton Central High School — Principal E. R. Payson.

Buffalo High School — Principal Henry P. Emerson.

Camden Union School — Robert Frazier, President of Board of Education.

Canajoharie Union School — Principal Charles F. Wheelock.

Canandaigua Academy — Principal J. Carlton Norris, Ex. Principal Noah T. Clarke.

Cazenovia Seminary — Professor A. White, Professor Eugene Joralemon.

Chatham Union School — Principal I. P. Bishop.

Claverack Academy — Principal A. H. Flack.

Colgate Academy — Principal James W. Ford.

Cook Academy — Principal A. C. Hill.

Corning Free Academy — Principal A. Gaylord Slocum.

Delaware Literary Institute — Principal Charles H. Verrill.

Egberts High School — C. F. Merrill, Superintendent of Schools.

Fairfield Seminary — Principal D. D. Warne.

Fonda Union School — Edward B. Cushney, President of Board of Education, Principal J. H. Weinmann.

Fort Edward Institute — Principal Joseph E. King.

Fulton Union School — Principal B. G. Clapp.

Glens Falls Academy — Principal Daniel C. Farr.

Hancock Union School — Principal C. W. Skinner.

Homer Union School — Principal B. B. Seelye.

Hornellsville Union School — W. R. Prentice, Superintendent of Schools

Houghton Seminary — Professor N. F. Wright.

Hudson High School — Principal P. T. Marshall.

Johnstown Union School — Principal W. S. Snyder.

Jordan Free Academy — Principal John W. Chandler.

Kingston Free Academy — Principal Francis J. Cheney.

Lansingburgh Academy — Principal C. T. R. Smith.

Macedon Academy — Principal Lewis H. Clark.

Middleburgh Union School — Principal Roland S. Keyser.

Mohawk Union School — Principal W. H. Truesdale.

Mount Morris Academy — Principal Frank Cudebec.

Munroe Collegiate Institute — Principal T. K. Wright.

Oneonta Union School — Principal Nathaniel N. Bull.

Owego Free Academy — Principal E. J. Peck.

Palatine Bridge Union School — Principal H. H. Loomis.

Palmyra Union School — Principal A. S. Downing.

Port Jervis Union School — Principal John M. Dolph.

Poughkeepsie High School — Principal James Winne.

Sandy Creek Union School — Principal T. C. Wilbur.

Saratoga Springs Union School — Principal J. Edman Massee.

Schoharie Union School — Principal Solomon Sias.

Seymour Smith Academy — Principal A. Mattice.

Sidney Union School — Principal Lincoln E. Rowley.

Sodus Academy — Principal Elisha Curtiss.

Syracuse High School — Principal George A. Bacon.
Troy High School — Principal Leigh R. Hunt.
Ulster Academy — Principal William E. Bunten.
Walton Union School — Principal Strong Comstock.
Waterford Union School — C. N. Cobb, Superintendent of Schools.
Watertown High School — Principal William K. Wickes.
Waterville Union School — Principal A. M. Wright.
Prof. Alexander Winchell, University of Michigan.
Dr. John E. Bradley, Minneapolis, Minn.
Principal J. K. Clark, Jr., Sparkill, N. Y.
Alice Gordon Root, Clinton, N. Y.
W. A. Baldwin, School Commissioner, Oswego, N. Y.
Edward P. Durant, Albany, N. Y.
Miss M. E. LeBoeuf, Albany, N. Y.
Hon. Elliot Danforth, Brainbridge, N. Y.
C. W. Bardeen, Syracuse, N. Y.
John Kennedy, New York city.
J. W. Van Valkenburgh, Albany, N. Y.
Mrs. S. E. Curry, Albany, N. Y.
A. J. Robb, New York city.
Hon. Silvanus Wilcox, Elgin, Ill.
Hon. D. H. Chamberlain, New York city.
Margaret F. Morgan, Albany, N. Y.
Cora W. Burnap, Waterford, N. Y.
Delia Davis, Waterford, N. Y.
Commissioner Jacob H. Mann, West Fulton, N. Y.
Commissioner George D. Chamberlain, Franklin, N. Y.
G. B. Meleney, New York city,
John S. Clark, Boston, Mass.
Abner Rice, Lee, Mass.
Russell A. Bigelow, New York city.
Rev. H. C. Farrar, Albany, N. Y.
George H. Qua, Knox, N. Y.

II.

Manual Training as an Element in Public Education.

By President NICHOLAS MURRAY BUTLER, College for the Training of Teachers, New York.

No phase of the history of civilization is more interesting than that which deals with the theory and practice of education. In the educational theory of an age, we find the summation of its philosophy; in the educational practice, an epitome of its activities. The school is a microcosm, and properly studied, it will furnish us the clue to the proper estimation of the status of every problem that vexes a particular generation. It will not solve these problems, but it will tell us how its contemporaries tried to solve them. The reason for this is that the school is the point of contact between each generation and its successor. It is the only point at which one generation meets its successor systematically, and with a definite purpose in view. And to the attainment of that purpose—the preparation of the rising generation to take its place in life—it brings all its best energies, and all its ripest experience. There is much confusion in the popular mind between the end and the means of education, and this confusion effectually prevents any proper estimation of the meaning and the lessons of educational history. Unless this confusion is removed, it will be impossible to understand the latest development of pedagogic thought, the one which we are to consider briefly this morning.

The immediate end in all formal education is the development of the mind's powers and capacities. This end is always the same, and is never absent. The means of education, on the other hand, are continually changing, and depend upon two varying factors—our knowledge of the child's mind and the character of its environment. These two factors vary with the progress of knowledge and are not quite the same in any two consecutive decades, probably wholly different in two consecutive centuries. The psychology of Descartes is not that of Aristotle, nor is the psychology of Locke that of Descartes; and neither Aristotle, Descartes nor Locke approximated the knowledge of the working of the human mind that we possess to-day. The changed conditions of practical life and the altered

characteristics of civilization are even more marked than the advances in mental science. It is far easier to contrast than to compare the civilization of Greece at the time of Socrates, of England at the time of the Stuarts and that of the New World to-day. The magnitude of the changes and their rapidity do not admit of appropriate expression and defy the power of statistics to portray. It is plain, then, that the means of education, what is sometimes called its contents as distinguished from its form, should and must vary to keep pace with our widening knowledge and our broadening and deepening civilization. Some difficulty is found in making this argument plain, especially to teachers. They are very often quite unwilling to believe that the curriculum in which they themselves were trained and on which they are now actively at work, is not the best, or at all events good enough for an indefinite length of time. Many of them would doubtless be considerably surprised could they see clearly what changes are wrought almost annually. The course of study to-day in the common school is not what it was ten years ago, and any comparison between our school programmes and those of Horace Mann would exhibit a striking diversity. This diversity is even more marked in the manner of imparting the instruction than in the material imparted. The truth is that progress in this as in other matters goes on without our knowing it, and it is only after the lapse of considerable time that the visible effects of this progress engage our attention.

It would be a gross error for those who attach themselves to a new educational movement to denounce preceding systems and conditions as misleading, worthless, bad. The most beautiful flower depends for its existence upon a clumsy and unattractive root. The flower loses its beauty and attractiveness if torn from the source of its life and strength. So it is with educational systems. The last makes the next possible, and the newest has quite enough to do without undertaking the profitless task of pointing out how all earlier systems would have failed had they been called upon to do something which in the nature of the case it was not possible for them to be called upon to do. Growth is continuous. Each stage is necessary; and it is worse than useless to attempt to exalt any one at the expense of that which laid the basis for it. Each system and each theory of education may have been the best for its own time. It can not fairly be judged by the standards of a later period. All of these points must be borne in mind in coming to the consideration of the question, shall manual training be given a place in the school curriculum? for that is the concrete form in which the latest development of educational thought presents itself to us.

The two phrases "manual training" and "industrial education"—the latter term being intended to signify an education which recognizes and includes manual training—are ambiguous and subject to serious misconstruction. It is a misfortune that no acceptable substitute for them has yet been found. Industrial education is an education in which the training of the pupil's powers of expression goes on side by side with the training of his receptive faculties, and in which the training of both is based on a knowledge of things and not of words merely. Industrial education is not technical education, though many persons confound the two. Technical education is a training in some particular trade, industry or set of trades or industries, with a view of fitting the pupil to pursue it or them as the means of gaining his livelihood. It is a special education, like that of the lawyer or physician. It takes for granted a general education and builds upon it as a foundation. Industrial education on the other hand, is the foundation itself. It is the general and common training which underlies all instruction in particular techniques. It relies for its justification upon the nature of the human mind, its powers and capacities. It may be fairly asked, then, why if this is the case, is the word "industrial" used; why is not this general and fundamental training denominated simply education? Though the question is natural, the answer is plain. We can not give the word education the signification intended because, at present, another and narrower signification attaches to the word. Education shifts its meaning continually to accord with the ideas of the age. To the Athenian it meant the pursuit of *Kalon K'agathon*; music and gymnastics were its characteristic elements. To the Roman, eloquence was an important and much esteemed attribute of culture. The preparation for life as an orator, therefore, is that which Cicero and Quintilian have in mind when they write of education. The idea of early Christendom was the antithesis of that of the Greek. The latter urged the development of all the natural powers to their fullest strength and beauty. The early Christian insisted that the fall of man from God involved the consequent untrustworthiness and worthlessness of human nature. So, instead of fostering the development of human impulses, the education of early Christendom hindered and endeavored to uproot them. This was what was meant by education in the cloister schools and the products of that system were ascetics and monks. And so we might trace the history of educational theories to the present time and we should find it a continual illustration of the fact that education means something different at each stage of the world's progress. If then the argument for manual training is as

sound as I believe it to be, what we mean by industrial education to-day will be included in the concept of education as understood by the next generation. For the present, however, the prefixing of some adjective is necessary to mark the divergence. For this purpose the work "industrial" was unfortunately selected.

The manual training movement as we know it, is new. It was put upon a strictly scientific basis a very short time ago, indeed; but it has been "in the air," as the saying is, for a long time. Over 250 years ago, Comenius prescribed manual training as part of the true curriculum. The "*Didactica Magna*" contains specific directions concerning it. Locke, Rousseau and Fichte, all emphasized manual training, though for different reasons. Locke agreed with Comenius and regarded it chiefly from the standpoint of its value in practical life. Rousseau and Fichte, however, saw that its influence on the growth of the pupil, mental as well as physical, was to be desired. Froebel in his kindergarten, reduced theory to practice, and in the kindergarten all manual training as well as all rational and systematic education has its basis. But Froebel's work did not include the development of a scheme of manual training for older pupils. This was furnished many years later, and from an unexpected quarter. M. Victor Della-Vos, director of the Imperial Technical School of Moscow, took the initiatory step. His report, made at the Expositions in Philadelphia in 1876, and Paris in 1878, contains this passage: "In 1868, the school council considered it indispensable, in order to secure the systematic teaching of elementary practical work, to separate entirely the school workshops from the mechanical works, in which the orders for private individuals are executed. By the separation alone of the school workshops from the mechanical works, the principal aim was, however, far from being attained. It was found necessary to work out such a method of teaching the elementary principles of mechanical art as, first, should demand the least possible length of time for their acquirement; secondly, should increase the facility of the supervision of the graded employment of pupils; thirdly, should impart to the study of practical work the character of a sound systematic acquirement of knowledge; and fourthly, should facilitate the demonstration of the progress of every pupil at stated times."

This Russian experiment was made known to the people of the United States in 1876 by Professor John D. Runkle, then president of the Massachusetts Institute of Technology. In his annual report for 1876, Professor Runkle gave an elaborate account of the Russian system, and pointed out its application to the work of the institution over which he presided. In consequence, a school of Mechanical Arts

was added to the equipment of the institute. In 1879 the St. Louis Manual Training School was organized, and the subject of manual training was formally put before American educators for investigation and criticism. Both the Boston and the St. Louis experiments, however, only suggested the real question at issue, they did little or nothing to solve it. They made it plain that for boys of high school age, manual instruction could be devised that would be practical, yet disciplinary; educational, not technical.

The next step was to recognize the unity of principle which underlay the kindergarten at one end of the educational scheme and the manual training school at the other. It was observed that both recognized the activities and the expressive powers as well the receptivities and assimilative powers. It was seen that the kindergarten and the manual training school were evidences of one and the same educational movement, though appearing at different points on the line. The observation of investigators was then directed to schools of the grades commonly known as primary and grammar, in order to determine whether or not their curricula were organized in accordance with the principle in question. It was soon found that they were not, and it then remained to be decided whether the application of the principle extended to them, or whether for some peculiar reason it could not be applied there. When this stage was reached, the very essence of the manual training movement was involved. If it was based on a pedagogic principle, and if that principle was sound, then manual training must be placed in schools of every grade. This question has now been fully answered. The manual training movement is based on a sound pedagogic principle, and manual training must be introduced into schools of every grade. To the statement and brief elucidation of that principle we may now turn.

In the first place, let me remind you of the distinction already made between the end and the means of education; that the one, the development of the mental faculties, is always the same, but that the second varies according to our knowledge of the child's mind and the changing character of its environment. The manual training which is to be introduced into the school must accord with the end of education and also be abreast of the present requirements of the means of education.

It is objected as to the first that manual training is not mental training, but simply the development of skill in the use of certain implements. This is bad common sense and worse psychology. Manual training is mental training through the hand and eye just as the study of history is mental training through the memory and other

powers. There is something incongruous and almost paradoxical in the fact that while education is professedly based upon psychology, and psychology has ever since Locke been emphasizing the importance of the senses in the development of mental activity, nevertheless sense-training is accorded but a narrow corner in the school-room, and even that grudgingly. Industrial education is a protest against this mental oligarchy, the rule of a few faculties. It is a demand for mental democracy in which each power of mind, even the humblest, shall be permitted to occupy the place that is its due. It is truly and strictly psychological. In view of the prevalent misconception on this point, too much stress can not be laid upon the fact that manual training, as we use the term, is mental training. What does it matter that the muscles of the arm and hand be well nourished and perfectly developed, that the nerves be intact and healthy, if the mind that directs, controls and uses them be wanting? What is it that models the graceful form and strikes the true blow, the muscles or the mind? Do the retina and optic nerve see, or does the mind? It is the mind that feels and fashions, and the mind that sees; the hand and the eye are the instruments that it uses. The argument for manual training returns to this point again and again, not only because it is essential to a comprehension of what is meant by manual training, but because it furnishes the ground for the contention that manual training should be introduced into the public schools. No one with any appreciation of what our public school system is, and why it exists, would for a moment suggest that it be used to train apprentices for any trade or for all trades. It is not the business of the public school to turn out draughtsmen, or carpenters, or metal-workers, or cooks, or seamstresses or modellers. Its aim is to send out boys and girls who are well and harmoniously trained, to take their part in life. It is because manual training contributes to this end, that it is advocated. We will all admit, indeed I will distinctly claim, that the boy who has passed through the curriculum which includes manual training, will make a better carpenter, a better draughtsman, or a better metal-worker than he who has not had the benefit of that training. But, it is also true that he will make a better lawyer, a better physician, a better clergyman, a better teacher, a better merchant—should he elect to follow any one of those honorable callings—and all for the same reason, namely, that he is a better equipped and more thoroughly educated man than his fellow in whose preparation manual training is not included. Therefore manual training is in accord with the aim of education.

We may accept such psychological postulates as we will, yet for

educational purposes we may agree that the mental powers are roughly divisible into two classes, the receptive and the expressive or active. By means of the former the child is put in possession of new facts and by means of the latter he makes these facts his own and uses them in practical life. As food will not nourish unless assimilated, so knowledge or mental food, is not really knowledge, is not really possessed, until we have so gained control of it as to be able to express or use it. The power of expression therefore is a very important adjunct of the power of reception. Man can express his mental states or ideas by the use of language, by gesture, by delineation and by construction. Of all these modes language is the most difficult, the most abstract, the latest acquired. When carried to any great degree of fluency and accuracy, it is universally considered an accomplishment. Yet in the ordinary school-room it reigns supreme, and the other modes of expression are passed over as if they did not exist. The argument for manual training insists that each of these modes of expression must be considered and that for the training of each a method must be devised.

It is hardly more than half a century since Sir Charles Bell discovered that the nerves which carry impulses out from the brain to the muscles are wholly distinct from those which carry stimuli into the brain. For twenty-five years researches have been making in cerebral and nervous physiology that have revolutionized mental science. The dependence of mind on body, the relation of the various mental powers to each other, and the importance of the distinction between the in-taking and the out-going powers of the brain are now recognized as they never were before. Naturally we expect to see these scientific conclusions reflected in any course of study which is abreast of them.

It is essential both in the powers of reception and in the powers of expression that the child deal with things and objects, and not alone with what some one has said or written about things. Education from the Renaissance until Pestalozzi, despite the protests of a Ratke or a Comenius, did not recognize this principle. It taught words and words only. Rousseau, Pestalozzi, Froebel and the hundreds of humble teachers whom they inspired, burst these verbal bonds and inaugurated that training of the receptive powers, now almost universal, by which the pupil sees things, touches things, handles things, and is not held at arm's length by the interposition of words. This is the philosophy of the object-lesson and it is because of this sound, scientific reason for its existence that it has become permanently established in the school-room. While this wonderful improvement in

the training of the receptive faculties was making, the active or expressive faculties were left to shift for themselves. When we examine the ordinary course of study with reference to this point we find that the powers of expression by delineation and construction are entirely overlooked. Reading and writing are the only studies in the traditional group that train expression, and they are wholly inadequate; and until very recently they were taught in such a way that they lost most of their disciplinary value. But even when well taught they are not adequate to the full demands of the mental powers of expression, for they rarely occupy more than ten per cent of the school time, except in the very lowest primary grades. Furthermore, they must be supplemented in another direction if the active powers are to be trained as they should be. The advocates of manual training come forward and demonstrate that their scheme of instruction will adequately and properly train the powers of expression. The powers of expression by delineation and construction are trained by the reciprocal instruction in drawing and in constructive work. It is proved that the boy who can draw a cube or he who can carve or mold one from wood or clay, knows more that is worth knowing about the cube than he who can merely repeat its geometrical definition.

Because of this psychological and practical soundness of manual training, the argument in its favor calls for the remodeling of the present curriculum. Manual training can not be added as an appendix to any other course of study; it must enter on a plane with the rest. It is suggested that much time now wasted could be saved by better methods of teaching, that logical puzzles over which so much time is now spent be eliminated from arithmetic, that spelling be taught in conjunction with writing, and history in conjunction with reading. The time thus saved is to be appropriated in about equal parts to drawing and constructive work, both together to occupy from one-quarter to one-third of the pupil's time. Drawing lies at the basis of all manual training, and it is to be taught in every grade as a means of expression of thought, only incidentally as an art. The constructive work is in material adapted to the child's age and powers. It is at first in paper and pasteboard, then in clay, then in wood, and finally—in the academic grades—in metal. These means are, so far as our present experience goes, the best ones for the training desired. But wider experience and deeper insight may alter or improve them at any time, just as our readers and spellers and our arithmetics have been improved.

The curriculum which includes manual training, in addition to meeting the demands of our present knowledge of the pupil's mind

and its proper training, is better suited to prepare the child for life than that curriculum which does not include it. The school is to lay the foundation for intelligent citizenship, and as the conditions of intelligent citizenship change with the advance of civilization, the course of study must change in order to adapt itself to these new conditions. No one who can read the lessons of history will assert that the ideally educated man is always the same. Greek education sought beauty, mental and physical; Roman education sought power and eloquence; monastic education sought asceticism and a soul dead to the world; Renaissance education sought classical culture and minute acquaintance with the literatures of Greece and Rome; modern education broadened this conception of culture until it embraced the modern literatures and natural science; and common school education in the United States in these closing years of the nineteenth century is broadening its ideal yet further, and is now demanding that the pupil be so trained that the great, busy life of which he is so soon to form a part be not all together strange to him when he enters it. It demands practicality. It demands reality. It demands that the observation, the judgment and the executive faculty be trained at school as well as the memory and the reason. Despite the fact that the three former are the most important faculties that the human mind possesses it is astounding how completely they are overlooked in the ordinary course of study. You will remember that Henry George tells of a bright girl, thirteen years of age, about to graduate from a grammar school, who had no conception that the back-yard of her father's homestead was a part of the surface of the earth that she had studied about in geography. She knew how thick the earth's crust was, she knew how it was formed, she could recite by rote a dozen more or less important facts concerning it—but she did not know it when she saw it. A professor in a normal school in a neighboring State lately took occasion to examine a new class of students averaging sixteen years of age, in order to determine the value of their judgment as to distance. I will read his own report of the test :

“In order to ascertain how well our public school course fits pupils for any actual, accurate work in life, I asked a class of seventy-four (74) in the State Normal School to do about the easiest thing that I could think of, viz.: measure the width of my class-room. Our pupils come from all sections of the State, city and country, are all necessarily over fifteen years old, have passed our entrance examination, or have finished the prescribed course in the public schools and have received a certificate from the superintendent.

"They all used the same yardstick as a measuring rod. No directions at all were given, the rod was not even called a yardstick; it was marked off and numbered in inches, though the word inch was not on it.

"But one student was allowed in the room at a time, and all comparison of result was forbidden. As soon as the pupil had finished measuring the room, he wrote his answer on a little slip of paper and then dropped it into a locked box kept for the purpose.

"Notwithstanding the fact that the same rule was used in every case, the results varied more than 300 feet, the lowest answer being ten feet, ten and one-half inches; the highest 350 feet. Thirty-six of the pupils had answers within one inch of the true result, which was thirty-one feet, one inch; nine of them made errors in counting the number of times they used the rule in crossing the room; four of them making it nine instead of ten times; four others calling it eleven times, while one called it thirteen times. At least one of the pupils considered an inch a foot; while two others thought the whole yardstick but a foot."

This simply means that these pupils had been taught words, not things. They knew that twelve inches make a foot and could rattle off the tables with surprising glibness. But of what a foot really is, they had not the dimmest idea. Manual training would correct this by bringing the pupils into contact with objects. It would so familiarize them with objects in all their details and points of interest that mistakes like these would be impossible. It would have them draw, sew, cut, saw and plane in order to appeal to the faculties now so neglected. The executive faculty will be trained by the handling of material and the applying it to specific purposes without waste or loss of time. The judgment and the faculty of careful and accurate observation will be continually exercised in the process.

At certain stages of civilization and national development there is a natural training of the expressive or active powers which though desultory, is by no means ineffective. I refer to the training which is the result of an active out-of-door life, especially in rural districts. The country boy receives this training in the hundred and one small occupations about the farm, and the old-time mechanic's son obtained it in his father's shop. The conditions which once made this natural training available for a large proportion of the rising generation are now altered and the alteration goes on year by year with increasing rapidity. We must bear in mind the growth of large cities and our unprecedented commercial and industrial development. The specialization of labor has destroyed one of the above-mentioned possibili-

ties and the growth of great cities is rapidly removing the other. When our first national census was taken in 1790 only one-thirtieth of our population lived in cities having more than 8,000 inhabitants and there were only six such cities in the country. Their total population was scarcely more than that of Albany to-day. At the present time we have over 320 such cities and their inhabitants number almost thirty per cent of our total population. This fact has a most important bearing on practical life and thus on the public school. We must remember also that between 1850 and 1880 our manufactured products increased in value 550 per cent and the number of those employed in factories increased 325 per cent. This when interpreted means that indefinitely more people than ever before have to employ their observation, their judgment and their executive faculty, and employ them accurately, in the performance of their daily duties. For them—and through them for all of us—the conditions of practical life have changed and are changing. Has the school responded to the new burdens thus laid upon it? The argument for manual training says no, it has not. A more comprehensive, a broader, a more practical training is necessary.

There is a further argument for manual training, but I have not touched upon it because I desire to place the subject before you from a strictly educational standpoint and according to the requirements of a vigorous pedagogic method. If we permit other than educational considerations to enter into the discussion of questions purely educational, we may be setting a bad precedent. Having premised this, it will not be amiss to refer briefly to the social and economic arguments in favor of manual training.

It is unquestionable that many of our social troubles originate in misunderstandings about labor and in false judgments as to what labor really is. They originate, I take it, from the same misunderstanding that causes the average young man to think it more honorable to add columns of figures for three dollars a week than to lay bricks for three dollars a day. Some of us affect to despise manual labor. It must be because we do not understand it. It must be apparent that if manual training is accorded its proper place in education, if we come to see that manual work has in it a valuable disciplinary and educational element, our eyes will be opened as to its real dignity and men will cease to regard it as beneath them and their children. This is what I would call our social argument for manual training. The economic argument is similar. It points out that the vast majority of our public school children must earn their living with their hands, and therefore if the school can aid them in using their hands it is putting

just so much bread and butter into their mouths. Now I have no sympathy with the purely utilitarian conception of the school, with what we may call the dollars and cents idea of education. On the contrary I cordially indorse the pungent aphorism of Dr. Munger: "Education is to teach us how to live, not how to make a living." But while standing firmly on that platform, I do say that if the best and most complete education happens to aid a boy in earning his living that is no reason why it should be supplanted by something less thorough and less complete. The movement which would place manual training in the school course has commended itself to the ablest and most thoughtful educators all over the world. I do not recall a single name of the first rank that is in opposition. Huxley and Magnus in England, Sluys in Belgium, Bréal and Salicis in France, Salomon in Sweden, Paulsen and Goetze in Germany, Hannak in Austria, Seidel in Switzerland, and Gabrielli and Borgna in Italy are leading the thought of their respective countries on this subject. In Sweden, in France, in Germany and in the United States professional schools for teachers are expounding the philosophy of manual training and the methods of teaching it, together with their other subjects of instruction. More than two score of most progressive cities of this country — several of them are in this State — are placing manual training in their public schools as fast as the means at their command will permit. Successful private schools in New York city, St. Paul, Louisville and elsewhere are doing the same thing. In twenty-five of our States and territories manual training of some kind is taught in some manner. No one who saw the magnificent exhibit of manual training work at the last meeting of the National Educational Association at Chicago will ever forget it. It marked a progress and a thoroughness that were inspiring.

A movement at once so philosophical and so far-reaching as that in favor of manual training, has not come into educational thought since Comenius burst the bonds of mediævalism two and a half centuries ago. It is the educational question of the time. Other matters are important as affecting administration, organization, methods of teaching and other details, all having to do with applications of principle, but the manual training movement is a principle itself. As might have been predicted it meets with no little opposition and considerable misrepresentation. The forces of conservatism are arrayed against it as something new; and it is doubtless well that it is so. For education is altogether too important a matter to be swayed by any and every crude theory. Any new movement to establish itself in education must run a gauntlet of opposition and criticism, the safe passage of which is a guarantee of excellence. This gauntlet manual

training has successfully run and it is to-day the newest phase of educational thought. In the first place it is a deduction from our increasingly complete and exact knowledge of mind, and in the second place it meets the demands for a more practical education made by the conditions of contemporary life. It so happens, and happily, that the education which our increased scientific knowledge points us to as the best, is more practical, in the best sense of that much abused word, than that which it supersedes.

REMARKS OF SUPERINTENDENT C. W. COLE OF ALBANY.

MR. CHANCELLOR.—After hearing the admirable paper just read, one feels like saying, "Who shall speak after the king?" City school superintendents are necessarily wholly engrossed with the practical; the application rather than the formulating of educational plans. In what I shall say on the subject of manual training, I shall confine myself, therefore, largely to a statement of what has been done in Albany.

The proposition to engraft manual training upon the course of study of the public schools was placed before the school authorities of Albany several years ago. Instruction in industrial drawing was begun in 1876, as soon as practicable after the passage of the law of 1875. This instruction has been given in all the grades of all the schools upon a definite and progressive plan. The teachers were all prepared for the work by a course of normal instruction and the supervision of the whole field was given to a special teacher. The results have been entirely beyond expectation. The annual exhibition of pupils' work has become an institution of which our citizens are justly proud.

As a natural sequence to the successful establishment of drawing as a regular study came the adoption of kindergarten methods in the lower grades, with practice in molding, the study of form, color, etc. The successful use of these means of development led to a closer investigation of the claims of manual training to a place in our regular school work. After a personal inspection of the workings of the new scheme in several forms in the cities of New Haven and New York I urged upon our board the propriety of taking decisive action. Accordingly, last fall, a special committee consisting of three members of the board and myself visited various institutions in New York and Philadelphia and studied their plans of operation. After considering the several plans in use, all of which we found to be identical in purpose, though varying in the manner of application, the special committee determined to report in favor of adopting the gen-

eral features of the Philadelphia plan which restricts the instructions in the use of tools to the high school grades. This plan commended itself for several reasons. It permitted the trial of the experiment with a limited number at a moderate expense, the pupils engaged in the work had reached a period of physical development that enabled them to handle real tools with effect, and the series of lessons could be given without interference with the other studies of the pupils. Pursuant to the recommendations of the committee the sum of \$1,500 was set aside for the establishment and conduct of a wood-working shop in the high school. We have fitted the shop with the work-benches, tools, materials, lavatory, etc., for classes of twenty-four pupils each, at a cost of about \$700. We pay our special instructor \$800 per annum. We estimate that \$200 a year will keep up the stock of tools and supply all needed materials for the wood-working department. A more extensive plant, reaching out into metal-working, forging, lathe-work, molding and similar lines, will require additional expenditure when entered upon.

The shop was opened for class-work in February. The boys of the first and second years were required to join in this work, but those of the two upper classes were permitted to volunteer. Much to the surprise of the teachers, every boy in the school announced his desire to take the new course, and before many weeks had elapsed, the senior boys, conscious that their time was limited to the few weeks of school left before their graduation, formed a special class to take lessons after school hours and on Saturdays—thus giving the strongest evidence of their high appreciation of the chance offered them of getting even a brief course in manual training. Our course of procedure in instruction is briefly this: The drawing teacher exhibits an object to the class, say a mitre-joint; the pupils make a working-drawing from the object, carry the latter to the shop and from it reproduce the object in wood. Of course, this is preceded by a sufficient number of lessons in the use of tools to enable the pupil to work readily and intelligently. Principles of construction are taught, as well as the most general uses of tools. Nothing is made for use or for sale. No attempt is made at special trade instruction. The course of instruction is wholly on educational lines. Some specimens of work are kept to illustrate the work of the shop; the rest are either used over in the preliminary course in the use of tools, or are broken up and destroyed.

From our brief experience we believe that it is established that manual training is legitimate educational work in our schools; that the tendency is to keep boys longer in school, that its effect is to round out the development of the pupil; that it promotes good order and

discipline, that it has a moral force, and that it dignifies manual labor by removing false notions of degradation. Having reached these conclusions we intend to extend the work in other directions as rapidly as practicable, until every pupil shall have an opportunity for a complete education of the mind, the eye and the hand.

REMARKS OF CHANCELLOR PIERSON.

I remember in one of my visits to a renowned university of this State, whose president is before me, I went into a blacksmith shop connected with the institution, in which I found students of various classes at work. It was practical work. I saw there that they had made a complete iron chain with hooks and swivels. They had all the appliances for turning out such work, and they knew how to apply them. I have often seen a boy who wanted to use a swivel, but I never before saw a boy who could make one. They converted square into round iron, made the links and the chain. I also went into a wood shop, where they were turning out all sorts of articles, usually made in such shops with lathes, and were handling planes, saws and other mechanical tools. I found there at work, a student, the son of a distinguished clergyman, with his apron on, at work as earnestly as if that was to be his vocation. And I thought how admirably adapted to the business of life all this was. It was not to be used for the mere practical work of life, but it gave them a higher power than all that; it taught them how they could use the things by which they were surrounded. I am glad we have time for the longer discussion of this most interesting question. I want to hear those men who are engaged in education, discuss this subject at length, and give us their observation.

Education is not only to teach that twice two makes four. Education is to teach that fact, it is true, and that is well; but education is something higher, something nobler, grander than all that; it is to teach men to think, it is to teach men the relation of facts, and the far-reaching results of cause and consequence.

When I was at Rochester a few weeks ago, I was much interested in what that ripe scholar and renowned educator, Dr. Anderson, said to his graduating class. Among other things he said: "Boys, learn to think; always learn to think, and learn to think always." This method of teaching is the making of influential men in all the walks of life.

REMARKS OF PRINCIPAL E. A. SHELDON, OF THE STATE NORMAL SCHOOL
AT OSWEGO.

MR. CHANCELLOR.—I fully agree with all the points that have been presented in the admirable paper which has been read. I realize the importance of thoroughly establishing ideas in the minds of the pupils under our charge. Here has been our great trouble. The most serious defect in our processes is that we do not fix clear and well defined ideas. This was the defect in the case of the experiment of measuring the room. His pupils had no clear ideas of the units of measure. They could doubtless repeat the tables of long measure with ease. But they had no well defined concepts of the terms employed. We all readily concede the point that in order to form clear concepts we must bring the senses to bear on real things. Our theories here are all that could be desired, but I fear that between them and our practice there is a vast difference. It seems to me this system of manual training should be universal; it should apply to all classes of pupils who attend our schools. If it is good for some, it ought to be good for all. I am interested to know what proportion of the pupils tested in the experiment related were boys, and what proportion were girls; what proportion came from the farm, and what proportion from the city. In our schools, eight per cent of the pupils are girls. Many of our boys come from the farm. And of the boys who come from the farm a large proportion would have measured the room accurately. Of the girls, only a very small proportion, not one per cent, probably, would have been able to perform the task required of them.

Now, if clear ideas are important to the workers of the world, then are they not equally as important to the girls as to the boys?

I find, practically, in all these experiments in manual training in our schools, that they are confined to the boys. Now, if our theories are correct, the shop should be for the girl as well as for the boy. But the tendency seems to be in another direction; the boy is to have manual training, and thus be prepared, in a practical way, for the farm, the shop, or whatever occupation he may enter upon. If we defend the shop as an appendix to our public schools on the ground of its educational value, rather than as a means of preparing for the trades, then why not open it to the girls as well as boys? Do they not need this advantage quite as much as the boys? In the Oswego Normal School the young men and women go to the shop together. In all our work in science the girls are required to make the same preparation as the boys. All the apparatus used must be made by every pupil in the class irrespective of sex. This is just as important

for the girls as for the boys. And why not? They have to use the apparatus the same as the boys when they come to the practical work of teaching, and why should they not know how to make it? Every consideration shows that this department of education is just as important to the girl as to the boy.

Another thought which seems to me important in this connection is its bearing upon that independence which we want to establish in the minds of our pupils; in other words, a spirit of self-reliance. We say to the pupils, "You must do this work with your hands; you must take the tools from the shop and use them, and you must obtain such and such results from your work." The answer often comes back to us, "We can't do it; we have never used tools." But on trial they find they can do it; very slowly and crudely at first, it is true, but with increasing skill, until, finally, they succeed. They accomplish the task set for them, and then comes the feeling of conscious power. This is a very important element in education; — to bring the pupil to realize that he has the ability to do that which needs to be done.

In our school of practice we have been trying the experiment of giving the boys knitting, sewing and mending, the same as the girls. If it is educational effects we are trying to produce, rather than training for occupations, then these are quite as important to the boys as to the girls. You may be pleased to know that the boys are just as interested and just as successful in this work as the girls.

We are talking about processes of education, and not processes of preparing boys for certain trades. The school is the place for educating the girl as well as the boy, and I can not see how we are to make any distinction as between girls and boys. I believe in this manual training as a factor in our educational work, and that it is good for all classes of pupils, irrespective of sex or social position.

REMARKS OF SUPERINTENDENT C. W. COLE, OF ALBANY, IN REPLY TO
REMARKS OF PRINCIPAL SHELDON.

If I am permitted, I would like to say that I would not have the impression go forth that we do not believe that the girls should have the same opportunities as the boys. We believe that the boys and girls should have the same chance.

It is with us here in Albany as it is with a great many others; we are not at liberty to go ahead as we should like to do, and carry out our ideas. We have the wishes of others to consult. Public opinion is to be taken into consideration, and for this reason we can not go on as we please; we have to go on tentatively. Having established the practicability of this system, and the benefits of the system as applied

to boys, we now hope to go forward to its wider application, and in the future to apply the system to girls as well as boys. We have endeavored to learn the sentiment of the community. We have obtained an expression of opinion from the Knights of Labor, the leading labor organization in this city, and that body is warmly in favor of introducing the system of manual training in the public schools. We have also obtained an expression of opinion from the Master Builders' Exchange, which is an organization of the builders in the city, and so represents the employing element of our business community. This organization has also expressed itself strongly in favor of the system of manual training. I want it understood that from both of these organizations we have obtained strong and unqualified indorsements of manual training as an element of the education to be hereafter offered in our schools. Sustained by such organizations as these, and with the unanimous support of our local presses, we hope to go forward in the future and give the system a broader and more general application.

REMARKS OF PRINCIPAL E. H. COOK, OF THE STATE NORMAL SCHOOL AT
POTSDAM.

Mr. CHANCELLOR.—I will only take the time of the Convocation for a few moments, as I want to express my opinion upon one point brought out in the paper. In the paper presented I was glad to see the line so distinctively drawn between manual training and special trade training, because I think a confusion exists upon this point which will tend to stop the advance of the new system. This objection is being advanced on all sides to-day. There seems to be a fear that it is nothing but the revival of the apprentice system under a new form. This objection is made by many good educators. It is true that the line between the two ideas should be sharply and distinctly marked. I am glad that it was so drawn in the able and instructive paper presented to us. I want to say amen to what Dr. Sheldon said about the girls. I believe that it is of great importance that this system should be universal in its application. I believe it should be for the girls as well as for the boys. But all good things come slowly. In every field the ladies must stand back and give the men a chance. Heretofore it has been so, and I presume it always will be so; but let them be patient and their day will come. In our school we follow out this same line, and we believe that in the training of our pupils this must be one of the principal elements. We try to give the girls a chance, and we believe that this is of great importance, because the girls form no inconsiderable element in our teaching force. The

women form very nearly five-sixths of the teachers of our State. What can be more important than their proper education? I want to call attention to one thing more in support of manual training. In every place where the system has been tried, it has been pronounced a success. So far as I am aware, not a failure has been reported. In my opinion, this is a matter of great importance. It should not be forgotten by all the good friends of this great system, that in every place where it has been tried the results have been such as to commend it to all thoughtful men and women.

REMARKS OF PROFESSOR DANIEL S. MARTIN, OF RUTGERS FEMALE COLLEGE.

MR. CHANCELLOR.—I simply desire to express the great gratification I feel, that this subject has been brought before us and given such a prominent place. We have had the question fully and beautifully presented in the first instance by the paper; and I was also much struck by the practical illustrations advanced by Superintendent Cole. The two aspects—that of the writer of the paper and that of the practical superintendent—are the complements of each other. Dr. Butler, in his able paper, has presented with great clearness the theory of this new system; and Superintendent Cole has presented to us its workings as thus far tried in the city of Albany, and that statement has served to illustrate and confirm the theory.

But, Mr. Chancellor, we can not look at any educational topic quite abstractly, least of all at one of so much moment as this. The contents of the system, as has been said, must be modified by the environment; and when we say this, we allow ourselves to look at the subject from other than a purely educational point of view—to consider it in its social relations and its moral bearings. It is some two years ago that this subject was for the first time clearly and strongly brought to my mind; and I have ever since regarded it as a matter of great moment in its social and moral aspects.

Education is the great factor in our civilization, and upon it we are wont to depend for the most important results in our national life. Yet this view may be insisted upon too strongly. We have carried our scheme of education so far, and made it so general, and advanced it to such an extent, that a dangerous aspect is presenting itself to many minds. Thousands of boys and girls are being trained theoretically in our schools; but the character of much of the knowledge thus acquired is mere book learning, and the pupils who are going forth into the world are very imperfectly fitted to meet the practical problems of life. There is a great peril here, lest our youth become imbued with ideas and habits that would make them indisposed and unqualified for honest and patient self-support. In this aspect, I

regard the element of industrial training as of immense importance to the country. I rejoice at the rise of this system, and see in it the promise of a better day.

REMARKS OF THE HON. MARTIN I. TOWNSEND, OF TROY, MEMBER OF THE BOARD OF REGENTS.

MR. CHANCELLOR.—I rise largely for the purpose of making a quotation. The late Honorable Horace Greeley once said that there was no so helpless creature in God's universe as a college graduate, and in my judgment he never said a truer thing. The great aim of education in our day is largely defeated. The boy goes to college to learn something, to gain new facts, to enlarge his ideas of men and things. He comes out knowing nothing which can then be made available. He can apply his knowledge to nothing. I tried it myself many years ago. Still he must enter upon the career of a business man, although unprepared for it. Now, I have no hesitation in saying to you, sir, and to the members of this Convocation, that the great aim of college men is to get a living. Is it not? And the great aim of education is to help them to get a living, to strive with others in the race of life. If then, you can help them to be useful to themselves, you will prepare them in a great measure for the work which they are to do. There are those whose wealth and social position may relieve them very largely from the necessity of exerting themselves to obtain a livelihood. But with a large majority of our people this is not the case, and unless the present system of college training is improved, ninety-nine out of every hundred of these pupils will be left behind in the first race of life. They can do nothing, they will become mere ciphers for years. Yet the great aim of college men is to get a living, and it should be the aim of education to fit the student properly to succeed in life. There is another thing I want to say here. I have endeavored to draw attention aside from the merely intellectual in education. I have said that the main purpose of education is to enable us to get on in life so that we shall be able to supply the wants of ourselves and those who are dependent upon us. But in advancing the training of the intellect, we are at the same time advancing toward the great end of education. The more perfectly a man is trained intellectually, the greater will be his power as a man of affairs. If a man knows something of principles, if he knows more of Geometry than mere lines and angles he will know everything better; he will understand everything that he should understand, everything that he needs, everything that he hears. I do not further wish to occupy the time of the Convocation, but I will leave off as I begun by drawing attention to that quotation of a distinguished citizen, who, on *many subjects*, had a great deal of good sense.

III.

Training Teachers for the Ungraded Country Schools.

By Principal E. A. SHELDON, Oswego Normal School.

The importance of having teachers specially trained for their work is now very generally recognized.

So long as there is an acknowledged necessity for the special training of men for other professions, and even for the various trades, it is only strange that any question should ever have been raised as to the expediency of establishing schools for the training of teachers. We should all be very unwilling to trust our lives, or the lives of our children, in the hands of an untrained physician, and we should be quite as reluctant to trust the building of our bridges, or even our houses, to untrained mechanics. With how much more distrust shall we put our children into the hands of untrained teachers, with a view to the forming of their habits of thought and action; to the molding of character; the making of men and women. That a difference of opinion should exist as to what constitutes the proper training of teachers, or as to the nature and extent of the provisions necessary for this purpose, we can very well understand. These are proper questions for discussion. That the teacher must have a knowledge of the branches to be taught is promptly conceded; and that he must know how to teach these branches is quite as readily admitted; but differences of opinion may exist as to the best mode of obtaining this knowledge. That it is better that one should be taught as he ought to teach, no one will question. As a means of illustration this has its value. That he has gained his knowledge in the way his pupils in turn are to gain their knowledge under his guidance, is certainly helpful, and is not to be ignored in the training of teachers.

That this is sufficient, we may very properly have grave doubts. Are we satisfied with such kind of preparation for other professions and occupations? Who would be willing to employ a physician who had gained all his knowledge of the "healing art" by observation? We demand, and very justly, that he shall have a profound knowledge of the principles underlying his art. He must have a thorough knowledge of the human constitution with which he has to deal; with

its varying conditions and phases. He must have a knowledge of the character of the remedies he employs, and the effect they produce as remedial agents. But we are not willing to stop here in our demands. We require that he shall have some experience in the practical application of the principles underlying his art, and have proved himself skillful. We would never regard a mechanic as properly qualified for his trade who had simply stood by while others worked. We demand that he shall use the tools and thus show that he can handle them skillfully. He must prove his ability to do by doing. And shall we demand less in the preparation of teachers to whom we intrust the rearing of imperishable temples? The house or the body we inhabit is of little consequence as compared with an immortal soul. A blunder in the one case is temporary in its influence and results, while in the other it is eternal. In this view of the subject we ought so to train our teachers as to avoid the making of serious mistakes in their work, and induce the highest possible skill.

In the first place the knowledge of the subjects to be taught should be thorough. This implies something more than a confused mass of knowledge, however abundant it may be. Far more important than the amount of knowledge is the way in which it is grouped and arranged in the mind and the facility with which it may be brought into service. Every point should be clear and well defined and properly related.

This knowledge is the material with which the teacher has to work. The child is the subject. It is quite as important to understand the nature of the structure we have to build as of the material with which we build. The teacher must know the child. He must understand his habits of thought and feeling; the motives that induce action; the laws of mental and moral growth; the various idiosyncrasies of the child; the relation of knowledge to growth and its mode of application, must be clearly understood so as to produce the best results. In addition to this, must be observation and experience in teaching under the direction of one who is wise in the art. Having passed successfully through this last crucible, the candidate may be considered trained for his work. Many who pass successfully through every previous test, fail in this; showing clearly that knowledge alone can not make a teacher. If we are agreed that teachers ought to be trained, and that the plan for training has been properly indicated, let us consider the adequacy of the provisions made by the State for the training of its teachers. By the last annual report of the State Superintendent it appears that 31,318 different teachers were employed in the public schools of the State during the

past year, and that 22,708 were employed at the same time. Of these, 1,422 were graduates of normal schools, and 21,286 were licensed by State Superintendent or school commissioners. This shows that only a little over six per cent of all the teachers in actual service in the public schools of the State, have had, what may be properly termed, professional training.

This certainly shows a very serious deficiency in the supply of trained teachers. The superintendent very properly says in his last annual report, "We might double the number of normal schools and even then they could not half meet the demands for trained teachers." But the multiplication of normal schools, based on the present plan of organization will never be able to fully meet this demand. The pupils who enter these schools are, at present, drawn very largely from the country districts. The most promising teachers become ambitious to rise in their profession, that they may occupy more desirable positions and receive better pay. With this object in view they very naturally look to the normal schools as a stepping-stone to such advancement. But having successfully graduated from one of these schools it is a very unnatural expectation that they will return to the same country schools, with the same compensation, after having expended their time and money to secure these higher qualifications with a view to promotion.

As a matter of fact they do not return, and we can not reasonably expect they ever will, unless the rates of compensation for such increased qualifications shall be greatly increased, except in the case of a few whose success in the normal school has been of a somewhat doubtful character, or who have had little experience in teaching outside of the school of practice. By this process the country schools are being depleted of their best teachers without any adequate compensation. It is easy to see that under the existing system of normal schools no provision is made for the rural ungraded schools. It is true that many of the pupils in the normal schools go back to these schools to teach while pursuing their course of study, and so carry with them something of the spirit and methods of these schools, but this comes very short of meeting the necessities of the country schools.

What is wanted, is a system of training schools organized on a different plan from the present State normal schools, and adapted to the wants of the ungraded country schools. These elementary training schools should be sufficient in number and so easy of access as to make it possible for all the candidates for positions as teachers in the rural ungraded schools, to receive the advantages of training afforded

by them. At least one such school should be provided in each county and in some of the more populous counties two or more might be required. The time of training might be confined to five months, thus sending out two classes each year. The terms for admission to these classes should require a thorough knowledge of the common English branches taught in the country district schools, so that no time would necessarily be occupied in teaching the branches. The training should be wholly confined to a discussion of the principles of education, the mode of applying these principles in teaching the common English branches, illustrated with lessons given to classes of children, and by actual teaching work under criticism.

This would make it necessary to locate these training schools in connection with existing institutions of learning, having primary departments which might be utilized as schools of practice. The teachers employed to do this training should be carefully selected with reference to their fitness, and their compensation should in no way be made to depend upon the number of pupils or the money appropriated. The work in these elementary training schools should be so related to the academies and normal schools as to fit into both. A pupil leaving the academy would be prepared to enter the elementary training school, and when he has passed through this school, his work should be accepted in the normal schools for what it is worth, and he thus be given an advanced standing in these schools, should he, at any time, desire to pursue the fuller and more complete courses offered by them.

By such an arrangement the academies would become the feeders for the normal and training schools, both elementary and higher, and in turn, the normal schools would furnish trained teachers for the academies and elementary training schools, and thus in due process of time these schools would become perfectly unified in the principles underlying the teaching work.

If we are right in the views here presented, then it seems to us the time has come for such legislative action as may be necessary to put them into execution. Last winter applications were made to the Legislature for the establishment of seven more State normal schools to be organized on the basis of the present schools. It seems to us there is more necessity just now, to strengthen the schools already established and make provisions for the teachers in the rural ungraded schools.

We see no reason why the present teachers' classes might not be made the basis of such a system of elementary training schools as we have suggested. It would be necessary to enlarge the appropriation

for these schools, advance the requirements for admission, extend the time of training, put them in charge of special teachers, and properly relate them to the Department of Public Instruction. All this seems easy of accomplishment if the heads of our departments of education can agree as to terms of mutual recognition and supervision. We believe the Legislature will be ready to grant any reasonable request in this direction that they may be agreed in asking.

Such an arrangement will go far to show that it is possible to unify our educational work, without the unification of the supervising heads.

As embodying the sentiments of this paper and in view of getting the sense of this meeting in regard to them, I propose the following resolutions and move their adoption:

Resolved, That in the judgment of this Convocation there is a strong existing necessity for the more careful training of teachers for the rural ungraded schools.

Resolved, That a committee consisting of President Adams, Principal Hill of Cook Academy, President Dodge of Madison University, be appointed by this body to confer with the State Superintendent, and the Board of Regents in regard to the practicability of so reorganizing the teachers' classes in academies as to meet the requirements of the county schools for better trained teachers, and to urge upon the Legislature such action as may be necessary to secure the accomplishment of the object contemplated by these resolutions.

REMARKS OF COMMISSIONER JACOB H. MANN.

MR. CHANCELLOR AND MEMBERS OF THE CONVOCATION.—I feel as though after the able and complete paper to which we have listened, that I need hardly say a word of my own. It is a great comfort when speaking upon any such matter as we have before us for consideration, to feel that you are talking to people who need no preliminary remarks, who understand all the fundamental arguments for education, and who are thoroughly competent to supply themselves with all the rhetoric and eloquence which it may be necessary to display on such an occasion.

I suppose you have asked me to open the discussion because of the fact that during the past six and one-half years I have had some rather unusual opportunities of judging the practical working of our school system in the rural districts. I shall return the compliment by speaking to you in the plainest manner, giving some conclusions which have been forcing themselves upon my mind in connection with this most important subject.

The training of teachers for the ungraded country schools and the matter of truancy are the two most important educational questions

of the day and of vital interest to the successful working of the school system.

We must not expect our schools to be better than our teachers. If the stream will not rise higher than its source, the source in education ought not to be in a low-lying bog of stupid, careless, blundering ignorance.

The conviction that all teachers should be thoroughly fitted for their work by special training has been of somewhat slow growth, but it is gaining steadily day by day.

I wish to emphasize the statement of the paper that the teacher must know the child. A knowledge of the being to be trained, as it is the basis of all intelligent culture, must be the first necessity of the teacher. If a teacher has a thorough knowledge of all sciences, literature and art, and does not have any knowledge of mind, he is not prepared to teach. His work is empirical.

Special training in the case of the teacher of common schools implies primarily and chiefly training by and practice under a master of methods. Not one in ten of the teachers of this State has received any special education or training to fit him for his business. Those who are long enough at work learn something; some of them learn very little. Of course it will be conceded that professional training in a good normal school is the best preparation for the new teacher. I have made repeated examinations of the comparative merits of normal school graduates and other teachers. The result has proved to be in favor of the normal schools in quality of work. The average teacher stops growing within a short period after achieving success, three to five years being the ordinary limit fixed. The teacher educated at a normal school is more likely to continue growing throughout the entire course. But the normal schools are like the lion's den to the fox who declined to enter because he observed that all the tracks had their toes towards the den. Our country teachers go from the districts to the normal schools, but never come back from the normal schools to the districts because they can do better.

Some means ought to be devised for bringing professional training nearer the homes of the great body of teachers of the State, that its advantages might be made available.

We make a mistake in thinking that better teachers can be secured by simply elevating the standard of requirements. There is a limit, beyond which teachers can not educate themselves without a great outlay of money. Unless they know that they can again realize this money in teaching, they will either refuse to expend it in self-education or having so expended money, they will seek to regain it by

entering more remunerative callings. By putting more money into our schools we enable our teachers to fit themselves for their work and to follow teaching when once prepared.

By discontinuing the district as the unit of school government and uniting all the schools of a town under one management and supporting them all by a common tax the teacher would be more fully protected and a long step taken towards making the teacher's office professional.

If the district system is to remain, the Legislature and Governor should be induced to increase the rate of State taxation for school purposes and to make additional appropriations to the school funds until the public money should pay the teacher entirely, leaving the district no other expense than to provide for their fuel, repairs, etc.

Under the present system the country school is too often an isolated, neglected object, and the teacher is depressed and discouraged by the indifference of the trustees and patrons. Introduce the township system and have the schools of the town supported by a general tax and the schools will become an object of local pride and respect, and many evils and abuses will thereby be remedied.

Under the township system the device for the initiation of new teachers, whether from the normal school or elsewhere, known in cities as "substituting," could be practiced. The new teacher is sent to fill temporary vacancies as they occur. If a partial failure is made and demoralization takes place on the part of the pupils, the evil is soon remedied by the return of the regular teacher. Meanwhile the teacher goes to fill some other vacancy with a store of valuable experience acquired. The plan of sending out such inexperienced teachers as substitutes not only makes them successful in far less time, but it positively saves many from complete discouragement and ultimate failure. I approve of the plan mentioned in the paper of having elementary training schools in the counties or commissioner districts of the State, and admission to the same being based upon a thorough knowledge of the English branches.

Without going into the details of a plan of operation, it will be enough to suggest that attendance for one session at a teachers' elementary school, where principles and methods of teaching are discussed and explained and practice lessons conducted, would be a valuable experience for one proposing to teach, and might with advantage be made a prerequisite for a teachers' license; that is in the case of candidates who have had no other special training.

I believe a committee should be appointed as suggested by the paper to take this matter in earnest consideration and report with recommendations.

Many of our commissioners have bravely contended against this evil of incompetent teachers, and with a zeal worthy of better success.

Arguments and reports we have had in abundance and they have not been without their effect; but what is now needed is a general movement among all the friends of education throughout the State, that shall aim to create a better public opinion on this subject in the country districts, and to effect suitable legislation which would tend to advance the standard of qualification and make it impossible for an incompetent teacher to secure an appointment.

We believe the time is ripe for sweeping reforms in this direction. We believe the people desire to increase the efficiency of our schools. We believe they are ready to sanction very rigid safeguards, and that it would be no blunder of legislation to make more adequate provision for the training of teachers.

REMARKS OF PRINCIPAL LEWIS H. CLARK, MACEDON ACADEMY.

Mr. CHANCELLOR.—Assuming as nearly correct that there are 31,000 teachers in the State, the problem of their proper training is one of considerable magnitude. The topic under discussion, however, is limited to the training of teachers for the ungraded rural schools, and the above number may doubtless be reduced one-third, and estimated at 20,000.

It is confessedly true that the normal schools, even extended to more or less in number, are educating but very few of these teachers, nor is there any real prospect that they will actually reach any greater proportion of that number in the future. Of the normal graduates who continue to teach at all, only here and there one will be found at work in the ungraded rural schools; they will all, or nearly all, seek some other place of labor. To many thoughtful workers in the educational field, there is but one real answer to the question implied in this topic: the great body of teachers for the ungraded rural schools must be educated in the academies and the academical departments of the union schools. They *are* being trained in those schools at the present time, if they are trained at all; they will continue to be trained there in the future, with or without State aid. Why shall not the State avail itself of this natural tendency? Is there anything impossible about it? Not at all. Sustain and extend teachers' classes in the academies; develop and improve their work, and the problem is solved. These schools number 271 in the last report of the Regents. Omit a few that, though found in the list are yet too limited in their organizations of departments to attend to this work, and thus estimate the number of

academies and academical departments at 260. Three teachers' classes a year to each, and filled to the maximum number, will require \$750 for each upon the present basis of appropriation. The 260 will require \$195,000. The State of New York can afford to grant this aid. When the normal schools shall be limited to normal training; when they shall be divorced from academic education and no longer rivals, loaded with the bounty of the State, to the 260 other schools of secondary instruction, there may be money enough saved to carry out this plan. If not, the additional money needed will be a small sum in the minds of legislators who are accustomed annually to vote any where from \$200,000 to \$500,000 for nine or ten normal schools. Give the normal schools their full normal work, but put the training of teachers who will never attend the normal schools into the hands of these 260 academies. Pay them for it. Compel them to do good work. Block out for them, if you please, regular systematic courses of training, such as are admirably sketched in the new circular issued by the Regents for teachers' classes. In a short time the whole of the 20,000 teachers will have received normal training; trustees will not engage them unless they have been members of these classes. The standard of teachers' qualifications will be raised. They will all have passed the Regents' preliminary examination, while now, I suppose, there are thousands who have not, and can not. The schools of secondary instructions will be built up and strengthened, and the entire school system of the State will feel the influence of a new and stronger impelling force.

REMARKS OF PRINCIPAL C. T. R. SMITH, OF LANSINGBURGH ACADEMY.

MR. CHANCELLOR, LADIES AND GENTLEMEN OF THE CONVOCATION.—Last winter at a meeting of the associate principals at Syracuse, I was appointed as one of the committee of conference to consider this subject and report, and have since given it some time and attention. I have conferred with some of my associates and with gentlemen in the Department of Public Instruction, and in the Regents' office. The more I have thought of the matter, the more it has seemed to me one of great importance. In my opinion, the work required of persons in such training classes preparing to be teachers in ungraded rural schools ought not to exceed five months. Very many of those that ought to be members of these classes could not well afford a longer time. Teachers' wages in country schools may seem to us ridiculously low, but in many districts the alternative is between an ill-paid teacher and no teacher. The expense of attendance on one of these training classes, for board, books and travel, ought not to exceed

eighty dollars. But even five months, if well used under the instruction of a competent teacher, might accomplish a great deal towards the end desired. I have thought what work might be done and have roughly planned in my mind a course that might be adopted. It seems to me that four weeks (fifty-six recitations) ought to be used in preliminary study of "School Economy," and especially the art of questioning. This study should be carried on by text-book recitation, supplemented by discussion and lectures. Then three weeks should be spent in observation. The training class and their instructor should visit departments of all grades and watch the work of the best teachers accessible. After each visit, the training class should repair to their class-room and discuss the methods used. The class should be called on one by one to comment on the good work, then on the educational defects and the possible improvements in the exercise that they had witnessed, and the observations of excellencies and faults might be reduced to writing. The regular teacher whose work had been observed should be invited to participate in the discussion. Two exercises per day should be thus observed and discussed. Three weeks of such work would be sufficient time for illustrating the theoretical study of the first month. Most of the class by this time would be able to know good teaching when they see it, and would have a practical idea in regard what not to do. Then for the practice-teaching. Each member of the class should prepare a sketch of the lesson to be taught on that day to a certain class in the graded school where they have been observing. The training class should meet in their class-room, compare and criticise their sketches, and, under the guidance of their instructor, decide on a good plan for teaching that particular lesson to that particular class. They should then go in a body to that school where the class of children is; the regular teacher should step aside for the hour, and the lesson should be taught to the children by two or three of the training class selected on the spot, without previous notice, by the instructor of the training class; the rest of the class taking notes of excellencies and of faults. Then they should, after an interval, return to their class-room and discuss and criticise the lesson given, the regular teacher participating in the discussion. The next day the process should be repeated with a different class of children, or in a different subject. In this way ten weeks should be spent, in which time each member of the class would be "under fire" at least five times. Three weeks would remain for review, with perhaps a little study of psychology and the true aims of teaching. Would not the teaching done by beginners in our ungraded rural schools be vastly

improved by such training? I know it would; for I have tried a similar plan in my teachers' classes, to a slight extent, for some years, and have received the testimony of members of those classes, after they had taught their first school, that the inkling of what teaching really is, that I was able to give them thus, proved of the greatest advantage.

In estimating the number of beginners in teaching that must be supplied to the State annually by such means, in order to meet the demands of our rural schools; or, in other words, in estimating the requisite number of such training classes in the State, one point should not be neglected. The teachers' tenure of office in rural schools is becoming more permanent. I was told last year by our commissioner that in his district of ninety-four schools there were hardly a dozen changes of teachers from the winter to the summer term. There are several reasons for this change. The average of scholarship and ability among teachers is rising. Trustees of country schools are more intelligent, and, more than all, the system of uniform examinations, carried on so successfully by Superintendent Draper, is weeding out many incompetent teachers, and thus contributing towards a more secure tenure for those that remain.

I hope, Mr. Chancellor, that this resolution will prevail.

REMARKS OF PRINCIPAL A. C. HILL, OF COOK ACADEMY.

Mr. CHANCELLOR.—The ungraded common schools are the most important factor in our educational system, and we stand on common ground in wanting them made as good as possible. They need the best teachers the country affords. The normal schools and teachers' classes are doing something to supply this want. It should be kept in mind, however, that none of the agencies now employed will fill the country schools with competent teachers, so long as the compensation is so meager. The State should see to it that teachers in these schools are adequately paid. Then we shall see them filled with well educated and well-trained teachers. Again, no proper provision is made for the selection of these teachers. The average trustee of a country district is unfit for the office. His sole aim is to get a teacher as cheap as possible. The State should take the matter of the selection and compensation of teachers into its hands. Until that is done, there is little hope for the ungraded country school.

REMARKS OF PRINCIPAL JOSEPH E. KING, OF FORT EDWARD COLLEGIATE INSTITUTE.

MR. CHANCELLOR.—The paper is one of those careful papers that is well thought out, and I wish to indorse it. The need exists. The means of supplying it exist; let us go forward and fill the need. We have 250 school buildings located in all the counties of the State, just what this department calls for; but the proper teachers for these supplementary normal schools do not appear to exist, because of lack of means to pay for this needed normal work. Now we have these class-rooms, easily accessible to the intending teachers; let the means of teaching them come from some source or other. Let it come from the State, and within twelve months this system will be going on in a proper manner, turning out a full supply of well-equipped teachers. I believe in utilizing the present means wherever they exist, and not in constructing new agencies, when we have them already at hand. The politicians, the shrewd men of the time, the wiseacres of that day, laughed at the idea of the Erie canal. They called it "Clinton's folly," but the people wanted it; and what they wanted they found means to obtain. Now where it was necessary, they cut that canal through the solid country, but when they struck a river, as later in building the Champlain canal, they built a tow path along its bank, and used the river as a canal. So, sir, let us use the means which lie ready at our hand. How much the State owes to its untrained teachers. Think of the brains of the country that were at one time teachers in those rural schools. I tell you, sir, that some of the brightest men of this country can boast of having been teachers of this class. Think of the great men of our time, the Garfields, the Arthurs, the Warner Millers, who, though never enjoying an hour of normal school training, went into the country, and with their clear common sense, their manly ambition, and thus earned upright lives, made all the region around blossoming and green. Now, sir, avail yourself of this intellect; in connection with their academic studies, give them some instruction in methods, and perhaps you will keep these men at our profession, and secure their brains for the great field of education. Give these young men some lessons in methods; add something of normal training to their intellect, and they will become, to the communities where they teach, as the very angels of God. Then, sir, in these country schools a teacher must be able to teach many subjects. He must be a well-rounded man. He can not meet the demands of the place if he be a mere specialist. His hand must reach through the entire State. To put a teacher who has been

trained for a department only into an ungraded school, is like putting a girl into one room in a factory and setting her to making rivets; in the rural district, you must make the whole watch. I think this business of training teachers should be greatly enlarged. Let us throw upon the question all the light we are capable. I would like to have suggestions from the normal schools. Be sure that we shall succeed in solving it, if to this great question, we bring the inspiration of an honest endeavor.

REMARKS OF CHARLES E. HAWKINS, INSPECTOR OF TEACHERS' CLASSES.

MR. CHANCELLOR.—I believe it is well established in history that during the stormy anti-slavery times preceding our late war, Henry Clay was called the great pacificator. So in the educational work of our State whenever there are jarring elements, whenever there is trouble and things fail to go on smoothly, I think it may be said with equal force that Dr. Sheldon is the great harmonizer. At the Principals' Association, at Syracuse, Dr. Sheldon presented a plan to harmonize the different instrumentalities for the qualification of teachers. These instrumentalities, the institutes, teachers' classes and normal schools, should support and strengthen each other. The institutes reach the great mass of the teachers, and give instruction to many who have not the opportunity or time to take an extended course in professional work. The work of the teachers' classes is two-fold, to prepare for more extended courses in our normal schools and to train teachers for rural districts which the graduates of our normal schools do not reach. The normal schools—omitting the instruction in the elementary English and academic studies—should have an extended course in mental science, in the history, philosophy and methods of teaching. This will entitle the normal school to rank as a normal college, while the graduate from our teachers' classes and from the colleges can take up a professional course without going over the same line of study pursued in other schools.

At the present time as the courses of study are arranged in our teachers' classes and in our normal schools, much of the work is, especially in subject-matter, repeated, or overlaps the other. In the teachers' class course the Regents' preliminary certificate is required as one of the conditions of entrance to these classes. But in addition to that twenty per cent of the pupils hold intermediate certificates, and a smaller number, I think about fourteen per cent, hold the academic diploma. Now, if the pupils in these teachers' classes should prepare to go to the normal school to receive their training as teachers, they

would have to go over the same ground again. Right here is the difficulty in the whole matter. The pupils will object to doing the work twice, and very naturally; they have no time to throw away. In life we must above all things be economical of time. What, then, would seem to be the solution of this question? Raise the grade of your normal schools, and abolish their elementary English course. In this way all the debatable ground which at present causes so much trouble will be removed, and the province of each one of these great agencies will be well and clearly defined.

IV.

Should the Elements of French and German be Required for Admission to all Colleges?

By Professor H. C. G. BRANDT, Hamilton College.

This question is somewhat awkward to discuss, because all colleges have not the same curriculum. Far from it. The curricula are so different, varying at the outset, or if not that, diverging from the same beginning to such different ends and aiming at such different results, that, excepting the English studies, the same requirements for admission can not be made for all colleges. I will say therefore, right here, that I can not answer this question either by yes or no. If I did, such an answer would need so much qualification and hedging that it would be very unsatisfactory both to those who agree and to those who disagree with me.

Modern languages have gained a place in the curriculum of even the smallest colleges with strictly prescribed courses. It is a humble place, to be sure, even in the largest and richest institutions. As causes of this secondary rank, which they still occupy, I enumerate without discussion :

1. Their late introduction. They play still the part of new comers.
2. Poor methods and low aims that look only at the practical benefit of the study.
3. Poor teaching material. Every foreigner, no matter how limited his education, thinks himself and is thought to be fit to teach French and German, and that is also the case with the American, who has traveled abroad, or if he has studied, can not immediately upon his return command a position in his specialty.

4. The non-requirement of modern languages for admission to colleges, which leads us to the topic of discussion to-day, viz.: *The position of French and German among the subjects of admission to college.*

On this subject Professor H. S. White, of Cornell University, has gathered some statistics, and read a paper, published in the Regents' Report of 1883. His statistics were somewhat discouraging, but five years of development in a new branch of study are not a small space.

Were I to report to you the result of my search in the catalogues and the answers to inquiries, you would either take heart or lose heart, according to your views as to the preference of ancient or modern languages, for within these five years Yale College has advanced to Harvard's old position of requiring either French or German, and Harvard has taken Johns Hopkins' position of requiring both French and German, allowing, however, the substitution of an advanced standing in another study for the elements of either. Since the same substitution is allowed for Greek and Latin, the four languages are placed upon the same footing as regards admission. In one sense French and German are better off, for if a substitute is offered for one, the other is required three times a week during Freshman year, while either Greek or Latin is unrequired. To be sure, this permission of an advanced substitute necessitates the teaching of the elements of French and German in college. But which study is deemed the more necessary by Harvard and Johns Hopkins, the one that may be dropt in admission and in college or the one that may be dropt in admission but is required immediately after admission? But I will lay no great stress upon the excellence of French and German based upon their universal usefulness, for I detest the mercenary, bread-and-butter view of any study even more than what may be called the "complimentary" view, which is an accomplishment like dancing or fencing.

Surely, then, the position given to French and German among the subjects of admission by Yale, Harvard and Johns Hopkins, is much more satisfactory now than it was five years ago, and when these great institutions are on the point of solving an educational problem, it is time that the rest of us began to look at it, ponder it and discuss it in a meeting like the University Convocation of the State of New York. I have just stated the mere fact, that either French or German or both are required studies for admission to certain high-grade institutions. I will now propose and try to answer the two questions: One, why the elements of the two languages should be prescribed subjects in the preparatory school; and two, what their relation should be to the other prescribed subjects. Let me say here that by "the elements" I mean what can be acquired in three recitations a week during one academic year. This would include a correct and fluent pronunciation, a thorough grounding in grammar, a tolerable vocabulary for the sight reading of ordinary prose and simple poetry, and not a small amount of prose composition.

In the first place, then, the elements of both languages ought to be prescribed for admission, because it is the nature of all languages

that they can be learned more readily by persons under eighteen years of age than over twenty. Particularly in the study of living languages the acquisition of the foreign sounds is a very important element. Now, it is a fact recognized by all authorities in the science of speech sounds, *i. e.* phonetics, that when we reach the age of eighteen or nineteen years our organs of speech have run so long in the grooves of our mother tongue, their habits have become so fixed, that they adapt themselves slowly and laboriously to the articulations required by foreign sounds. Only an exacting course in the analysis and synthesis of speech-sounds can overcome this fixity of habits and make good this lack of adaptability, a course which few instructors have the time to give in college and fewer still the preparation and ability to give. Now the age at which the pliancy of the speech-organs is hardly impaired coincides with the years of preparation for college and the average age of college entrance is between eighteen and nineteen years. I argue, therefore, from this, that the elements of a living language should be required for admission to college, in order to a complete acquisition of that language. But would not one of the two languages meet the case? I think not. The time spent upon acquiring the elements of the two languages is more profitably employed than the same amount of time spent upon one at the age that we are now speaking of. The two languages differ considerably in their structure and sounds, though it is true, that, when the organs of speech have learned to produce the sounds of one language, they will the more readily acquire those of another however different they may be. We must not leave our students in the unfortunate linguistic proficiency of Brander Mathews' Alsatian cyclorama painter, who spoke English like a Frenchman and French like a German. Also, when Greek or Latin is not required the elements of both French and German should be insisted upon.

Secondly. French and German should be required for entrance in order to raise the quality and grade of the work done in them in college. There are studies, such as philosophy, political economy, and ethics, which have already commenced in college as required studies, and this, on account of their nature, is no disadvantage and no disgrace to them. But the elementary work in foreign language is slow and not over-difficult, and properly belongs to the preparatory school. In an old catalogue of Hamilton College of about fifty years ago, I found that French was required during the third term of senior year.

It seems to have been looked upon as a stop-gap or added as a recreation for the senior minds wearied with metaphysics and the

Evidences of Christianity. Perhaps it was looked upon as the final touch, such as young ladies receive, who are "to be finished by travel, whatever that may mean." I have heard ex-President Barnard of Columbia College say, that in the beginning of the elective system at Yale College many years ago, the students had the choice between beginning Hebrew or French during junior year. There are still colleges in which a term of fifty or sixty lessons in French or German, taught by some member of the faculty whose chief qualification is leisure, is tucked in somewhere during Junior or Senior year. It is interesting to observe how French and German have gradually crept backward from the end of the course toward the beginning, until even moderately progressive colleges require them at least Sophomore if not Freshman year. We want them to begin early and end late. One required term's study of them is mere play, no matter where in the course it is put. We want, long far-seeking, severe courses in them. This dilly-dallying "*Sprechen sie Deutsch?*" and "*Parlez-vous Francais?*" plan as the sum total of a French or German course must stop; or else the advocates of the ancient languages as against the modern will not stop reproaching us with the trivial character of the results, the shallow methods and the general superficiality of our department. I wish that there were time and opportunity here to describe a full course in modern languages, that takes three or four years. I can only mention the topics: A correct pronunciation, phonetics, fluent speaking and writing; literature, its history, its relation to sister literatures and to those of Greece and Rome; the history of the language and the make-up of its word-stock, its various periods of development; even linguistics or the science of language can be studied successfully from the vantage-ground of living languages. These topics cover both languages. I will not specify separate courses in each. Surely then if French and German were required for admission we could raise our department to a higher level. Any study thus raised is a gain to culture and to science.

In the third place French and German ought to be prescribed for admission, because they are useful for the other studies. The reference books, the text editions and so many other helps could be used immediately. It may be said, that by the time the college student is ready to use foreign helps, he will have learned French and German enough in college. I am not so sure about that. I spoke of French and German being pushed back toward the beginning of the course. The same is true of chemistry, physics, biology, and philosophy. The old prejudice, that physics is the proper prescription for juniors; chemistry and metaphysics for Seniors is disappearing. In the larger

colleges physics or chemistry is required for admission and during Freshman year, and even elective with biology and geology. Any study in which the maximum has been offered for entrance, can be immediately continued as an elective, which implies an advanced stage of the subject. Is it then safe to say, there is time enough to begin French and German in college so as to use them in other studies?

In the fourth place, French and German ought to be required in the elementary stage on account of the discipline they afford. Of course they will afford the same in college, but the conditions are more favorable in preparatory school. In all colleges that have scientific courses, in all separate scientific institutions, where no Greek is required for entrance, elementary French and German ought to be required for entrance, so that the scholars may not miss those benefits of a liberal and broad education, which the study of foreign languages affords. Where there is no Greek, there certainly ought to be French and German. Look over the requirements for admission to our scientific courses and separate schools, and what are they in the line of languages? A little English and a little Latin; of course no Greek at all. The most frequented scientific school in the country (the Sheffield) requires (1) in English: "Grammar, spelling and composition," (2) in Latin: "Simple exercises in translating English into Latin (*Smith's Principia Latina* and six books of *Cæsar*)."

Why this is pitiful! But it is a positive disgrace when no foreign language at all is required, as is the case with some of our richest and fullest institutions, that could well afford to repel immature applicants by higher requirements, which in languages ought to include, at least, elementary Latin, French and German. No wonder that the degrees of B. S. and B. Ph. are considered inferior to the degree of B. A.

I come now to the second question I proposed and engaged to answer, viz.: "How can elementary French and German be required; where can they be put in the preparatory course? Requirements are high enough; the subjects are abundant; there is danger of too much scattering. Now, as to scientific and other Greekless courses, these objections can not be made. It is clear that their requirements are very low and the subjects very few. But even where Greek is required or elective for admission there is room for French and German. The cry of "too many subjects already" has always been raised when a new branch of knowledge knocked at the doors of our colleges. When natural science passed from the encyclopedian period, one professor teaching chemistry, natural philosophy and geology, to the specializing period, when she gave birth to several other Minerva-

like daughters, this cry was raised. When, later, the living languages claimed more of the room and rank held by the dead ones, this same cry was raised. There was a remedy found when the contest was most noisy and bitter. This remedy was *the elective system of studies*. By a little yielding on the part of those subjects that were in possession of the ground, and by a little squeezing and shifting all around, room has been found in the college courses for nearly all the new branches of knowledge that have come up since the renaissance of learning. But now both science and modern languages are looking for and actually finding room in the preparatory courses. The elective system is helping us out here also. Let us take a survey of the required subjects for admission to college. I will enumerate and group them:

1. English: Grammar, Style and Literature.
2. History: (a) either National and English or (b) Greek and Roman.
3. Geography: Topographical, Political and Historical.
4. Greek.
5. Latin.
6. French.
7. German.
8. Mathematics: (a) Arithmetic, (b) Algebra, (c) Plane Geometry.
9. Natural Science: (a) Physiology, (b) Astronomy, or (c) Physics or (d) Chemistry.

These may be grouped as follows:

1. The English group in the wider sense, comprising mother-tongue, history and geography.
2. The foreign language group including Greek, Latin, French and German.
- 3 The mathematical and scientific group.

This list of subjects is not an imaginary one, unfortunately it is only an ideal one to many of us. But our first-rank institutions are now actually requiring them, and our first-rank preparatory schools, the German *Gymnasium* and *Realschule*, English taking the place of German, are teaching them. The amounts differ very much. They may be larger or smaller, "maximum" and "minimum," "advanced" and "elementary standing." The institutions differ in the required subjects and allowed substitutes. The minimum of each subject may be required, and the maximum of any two except the first group, because History and Literature are hardly carried in preparatory schools to what would be called the advanced grade. When Latin and Greek are the chosen advanced entrance subjects, the firmest believers in, and the most obstinate advocate of, the old education will be satisfied.

He gets the full amount of Latin and Greek, by the study of which he believes all mankind must be saved intellectually. Changing French and German to French or German, omitting science and requiring nearly the maximum of Latin and Greek, my scheme would be that of Yale College proper. Omitting French, German, science and requiring much less than the maximum of Latin and Greek, we have the average requirements of the smaller college, that has only one course, "the classical," ending in the degree of A. B. Sometimes it has an insignificant "annex" for scientific and special students, to which the admissions are very lax, not even the minimum being called for in subjects that are required at all.

But the principle of election may be applied still more. Besides allowing the choice of subjects for advanced standing from the second and third groups (foreign languages, mathematics and sciences), the right to substitute the maximum standing in one subject for the elementary standing in another may be allowed. This, under certain limitations, is done by Harvard and the Johns Hopkins, though these limitations differ somewhat. Harvard after requiring advanced standing in any two subjects of the two and three groups, allows the substitution of advanced mathematics and physical science (either chemistry or physics) for elementary standing in Greek or Latin, French or German. The Johns Hopkins has broader limits still and allows in addition the substitution of advanced French or German plus elementary French or German, for Greek. After admission, one institution separates its students in groups and according to courses, which end in different degrees, another gives only one degree for all courses, that of A. B. We are gradually recovering from the shock that the bestowal of A. B. without Greek gave us. History and tradition were against it. But it is a fact now; an institution that gives but one degree has a certain compactness and unity which that one lacks, that fixes different degrees upon different courses. These distinct courses, especially when they are called "schools" are apt to tend toward too early specialization and thus to prevent the laying of the sound and broad foundation of a liberal education. Thus the right and liberty of substituting studies for the other under varying limitations according to the character of the institution may solve the troublesome questions of degrees, while answering at the same time the question, what to do with so many subjects of admission to college.

I would be satisfied with the substitution of the advanced standing in any subject from the second and third groups for elementary French and German, provided Greek also be made elective, while

Latin should remain required for the French student who will need it in his higher work. But it should be the aim of modern language men to screw the advanced standing in French and German, as substitutes for Latin or Greek, high up out of sight of the natural method adventurer and the versatile American traveler and specialist in another department. We should try to bring it about, that all Greekless courses require elementary Latin, French and German. For a certain period to come we shall have to teach the elements of French and German in college, certainly where Greek is required. There is one encouraging feature about this drawback, that those students who enter with Latin and Greek, especially with advanced standing in them, acquire French and German very rapidly. Let us keep this point in view: The four languages in question form one group, which among the requirements for admission to college represents one wall of the foundation, upon which the structure of the college course rests. Let not one stone say to another: "Aroint thee, thou art post-tertiary, I am paleozoic." I have always thought the mathematicians happy, because they have no occasion to make unpleasant distinctions between arithmetic, algebra and geometry. The contrast between ancient and modern languages is not a natural and radical one. Let there be no contest between them. The conflict that has taken place is abating, like the conflict between evolution and faith. It will soon be settled like the seeming conflict between science and religion in former generations. Let us, the workers in and advocates of, the language group, strive to gain and maintain a dignified, strong position in the whole scheme of studies. Let us see to it, that institutions that emphasize science or history, that our professional schools of law and medicine increase their requirements for admission by insisting upon the elementary knowledge of some languages, even if Greek be not included, or at least teach some languages in their courses. We grant that Latin and Greek are most valuable disciplinary studies, that their poetry and their philosophy are unexcelled, that they ought to be studied on account of the "sweetness and light" that they shed, but we can not grant that demand that they be studied by all, that they be required of all. Our classical friends may as well recognize, that there is going on both in Germany and in this country a rearrangement of the relations between gymnasium, realschule and university, and between preparatory school, college and university, and that in this rearrangement French and German have gained a firm foothold not only as alternatives but even as substitutes. Said a prominent professor of Greek to me lately: "We will teach Greek to all that want

it, but we will try to make as many as possible want it." We modern language men say "We will teach French and German to all that need them, everybody needs them, but most of all those who do not want Greek."

REMARKS OF PROFESSOR H. S. WHITE, OF CORNELL UNIVERSITY.

Professor Brandt's paper, with the spirit of which I find myself quite in agreement, presents so many interesting topics that it is difficult to select one for discussion. I shall endeavor to deal only with some of the practical aspects of the alternative requirements of French and German in college entrance examinations.

Professor Brandt has said that it would be difficult to answer the inquiry upon which his paper is based by a single yes or no, and has indicated the cause creating this difficulty. It appears to arise out of the complexity of college courses, which have varying entrance requirements and varying requirements for the attainment of various degrees.

Leaving out of consideration for the present the scientific schools and technical departments as they demand separate treatment, we find three general courses, first, the one leading to the degree of A. B., in which Greek and Latin are required for entrance; secondly, the one leading to the degree of Ph. B., in which Latin and one modern language are required for entrance; and in the third place the English or scientific course leading to the degree of B. S. or B. L., in which one and rarely two of the modern languages may be found among the entrance requirements. Even where two languages have been thus required, I believe as a matter of fact that they are rarely presented by the applicant but he is permitted to make up one or both after entrance as extra work.

I assume that it is desired at least in theory to maintain the equality of these three courses both in respect to the entrance, and the graduation requirements, or in other words, to attach to the three degrees the same dignity and weight. From this point of view it is clear that both French and German ought unhesitatingly to be required for admission to the courses which require neither Greek nor Latin. That is to say, at least two languages and a suitable amount of those two languages should be required for admission to any college course. So far, the decision appears simple. It would be more difficult in colleges having a variety of courses, for if a knowledge of one or both of the modern languages be demanded for admission to the course in arts, some equivalent requirement must be added to the other courses.

This equivalent would be either science or mathematics. The adjustment of such requirements is naturally a matter for college legislation.

The question now arises: Can the secondary schools furnish the necessary instruction in the modern languages?

In the report referred to by Professor Brandt, which was made six years ago (see the Proceedings of the Twentieth Meeting of the University Convocation, July 11-13, 1882, pp. 118-126), the prospect seemed discouraging; but Professor Brandt points out that much progress has since been made. At the holiday meeting of the principals in Syracuse, last December, I remember that only two principals acknowledged that in their school no modern languages were taught. This work, then, can now be better done. Some complaints, however, have been heard because the colleges, too, continue to teach the elements of the modern languages, interfering with the work of the secondary schools, and discouraging them.

The college, of course, should be based upon the school, neither suspended above it at an awkward interval, nor so superimposed upon it as to oppress and impede its work. Theoretically, then, the college should do no teaching which the secondary school is doing; and this arrangement was possible in practice at an earlier date, when the college curriculum was a uniform prescribed course. To-day the college or university curriculum, as we have already noted, is the blending of a series of courses with varying requirements for entrance, and varying requirements for graduation. This is growing to be the case with the secondary schools too. And, as the college is supposed to teach all branches, but can not require a knowledge of them all for admission, it follows, under our present system, that the college must teach the rudiments of at least a portion of those branches. This is specially the case with French and German, an acquaintance with both of which is now required in many colleges. As a knowledge of both is not required for admission, it follows that beginning classes in both must find a place in the college curriculum. It is very easy to see, then, why the courses of college and secondary school must partly lap. This condition of things, necessary for the present, as it appears, ought really to have no discouraging influence on the secondary schools. In fact, the work in the last year of a good high school is often done quite as well as the same work in the college.

If, nevertheless, the undesirability be maintained of offering elementary instruction in French and German in a college curriculum, I see at least two feasible expedients for avoiding this difficulty, which I present without necessarily recommending or favoring them.

The first would be to require no modern language for the degree of B. A.; two years of one modern language for the degree of Ph. B., and two years of two modern languages for B. S., the first year's work in each case to be done before entrance. The college would then be freed from the necessity of offering any elementary instruction in either language.

Another plan would be to require no modern languages for entrance or graduation, but to offer advanced instruction in all, trusting to the somewhat uncertain hope that the desirability and importance of these languages would prove a sufficient guarantee against their neglect. Such a plan would imply a still further extension of the elective system into the secondary schools, a somewhat difficult question, upon which the heads of those schools are better qualified to speak.

For the present, then, it appears that the colleges must continue temporarily to teach the elements of French and German, and possibly the extension of the elective system may even tempt some among them into teaching the elements of Greek and Latin too, for the sake of such as desire to embrace all four languages within the individual curriculum. Such instruction, however, is no proper part of the work of a college or university, and I trust that some way may be found for relegating it entirely to the secondary schools. That way, I believe, will ultimately be found by uniformly increasing the entrance requirements of all the courses.

V.

Should the Modern Languages be Substituted for the Ancient
in the College Course in Arts?

By Professor SIDNEY G. ASHMORE, of Union College.

A great deal has been said from time to time about the propriety substituting the modern for the ancient languages as the basis of liberal education. The matter was strenuously urged by Professor James MacAllister, superintendent of the schools of Philadelphia, at a meeting of the Modern Language Association in Philadelphia in December last, and more recently (though with limitations) by Professor Seeley of Cambridge, England, in his address of welcome to the "seventh congress of the National Society of French Professors residing in England." The plan proposed is that of substitution. Professor Seeley is reported to have spoken in part as follows: "I admit that the position of the classicists is untenable, and that their *non possumus* must be unreasonable, as to substituting in education modern languages for the ancient." Professor MacAllister is represented (in "Science" of January thirteenth) as having "ranged himself clearly and openly on the side of those who favored the substitution of modern literatures as the basis of a liberal education in place of Latin and Greek."

Now, the value of the modern languages can hardly be overestimated; yet we doubt whether their cause will be much advanced by those who take the position of the eminent educators just mentioned. We believe the theory of the latter to be unsound. To substitute the modern languages for the ancient, or even to give them a place in our educational system where they will take precedence of Latin and Greek, means, practically, the total abandonment of that which is of primary value in the attainment of literary culture. It is to omit, we may say, the very essentials of the higher education;—to leave out Hamlet from the play. The plan may be popular; but it is not philosophical. It assumes moreover a natural antagonism between the ancient and the modern literature, and keeps alive the idea of a controversy, in which the new is struggling to supplant the old and if possible to reign in its stead.

But the ancient is not opposed to the modern in the sense that light is to darkness, virtue to vice, truth to falsehood. The ancient underlies and upholds the modern, in language, literature, philosophy, art, civilization; and it can no more be dispensed with in education than in anything else that is fundamental and retrospective, and dependent upon the developments of the past for its conditions and growth. The true attitude in regard to this question, is taken, we believe, by Professor Edward S. Joynes, of South Carolina College, himself a teacher of the modern languages and claiming for them high rank in the educational system. We quote from his paper entitled, *Position of Modern Languages in the Higher Education*: "We will make the negative remark, that we should regret to see the modern languages admitted by substitution for either Latin or Greek into the course of arts. If a modern language is here required, it should be in addition to, not in substitution for, the ancient languages." And again: "Thus far we have written mainly as though the modern languages were studied without the ancient. This is the lowest view of the case—for the modern linguist, certainly the most depressing. Where they are studied together, French and German as well as Greek and Latin shine not only with intrinsic but with reflected light; then the ancient and modern languages illustrate and reinforce each other by analogies and contrasts reflected and redoubled; then we have the elements at least of a science of languages, within a range, not large indeed but preëminently rich and instructive."

Professor Joynes claims no less for the modern languages than do those who advocate the plan of substitution. But he assigns them their just and proper place in the scheme of education. They should be taught, he proceeds to say, "Side by side with the ancient languages, as with every other department of liberal or scientific culture; with reference at once to scientific scholarship and to practical use, to be recognized by diplomas and degrees appropriate to their character, *yet not by substitution for Greek or Latin in the degrees of Arts.*"

And why not by substitution for Greek and Latin in the degrees of arts? Because the degrees of arts are the symbols of a liberal education, and to a liberal education the ancient classics are essential. If this be not the general view, it is because our notions of education fall short of the highest ideal. To the higher education the classics are indispensable. But little work in the regions of philosophic study can be done without them. Remove their influence forever from our institutions of learning and the higher culture, like a building deprived of its supports, would soon collapse and disappear.

Latin and Greek however are not as popular in our colleges and universities as French and German. It fact the youth of this country are fast imbibing a more than ordinary prejudice against them; and it has been substantially proven that of two courses leading to the same degree, the one requiring and the other dispensing with classical studies, the latter is largely preferred. Nor is this strange. The more direct bearing of French and German upon the practical affairs of active life very naturally induces a discrimination in their favor, and the fact that the modern tongue is on the whole, easier of acquisition than the ancient, will, we fear, always weigh heavily with the majority. Philologists may be right in telling us that the "Scientific study of modern languages really requires a far more extensive apparatus than that of the ancient;" but philology aside, it will be admitted by those who have thought on the subject that the languages of modern Europe are more rapidly mastered and more easily retained than those of ancient Greece and Italy. It would be unnatural were it not so. Modern modes of thought differ materially from ancient modes. The arrangement of the words and the character and mutual dependence of the ideas in a sentence of Horace, Tacitus or Thucydides, certainly present greater difficulties to the modern reader than a page of Goethe, Friedrich von Traumer or Molière. Ancient languages are synthetic in their structure; modern are analytic. In the latter the relation of one word to another is largely determined by its position; in the former, position gives emphasis rather than meaning, and the relations of words are indicated chiefly by their termination. The consequence is, a varied and difficult system of syntactical constructions which depart widely from those of our mother tongue, and which even in this age of grammarians have not yet been fully classified.

But the increasing indifference to classical studies, due as it is very largely to extraneous causes, is not likely to aid the cause of education in general, or that of the modern languages in particular. Even if we admit, with Professor MacAllister, that "the modern languages of the world contain all the elements necessary for attaining the aim of culture," yet these modern literatures are extensively indebted for those very elements to the literatures of antiquity, in whose light they shine with reflected luster. Moreover, it is an open question whether the modern languages do contain all the elements necessary for attaining the desired end. Far as we would seem to have outstripped the ancients in many things; although we may have left them behind in science, and perhaps in law, politics, philosophy, and

that vast accumulation of inventions and contrivances that go to make up the complicated machinery of our nineteenth century civilization, yet even in such matters as these, it is to be remembered, the ancients led the way, and in some particulars have maintained their supremacy to the end. In literary composition, *e. g.*, the Greeks and Romans attained an artistic perfection that has never since been equalled. The great works of their foremost writers are lasting models of taste and beauty. They are the very essence of good form. A tragedy of Shakespeare may excel all else in its delineation of character or the arrangement of its plot; but in the artistic handling of the essential elements of tragedy—majesty and pathos—no writer of modern times is the peer of the author of the Agamemnon and the Seven against Thebes. In each of the four great Shakespearian tragedies—in Lear, Othello, Macbeth, Hamlet—there are, says Mr. Frederick Harrison, “slight incidents which could be spared without any evident loss. The Agamemnon alone of tragedies has the absolute perfection of a statue of Phidias.” In comedy Aristophanes is the immortal type, the norm; as is Homer in epic poetry; as are the fragments of Sappho, Alcman and Alcæus in pure lyric verse; and Macaulay pronounced the narrative of the Sicilian expedition the finest thing in history. In short, as an eminent classicist of the day has expressed it: “We can not get rid of Greece and Rome if we would. The phraseology of Latin is wrought into our mother tongue. The scientific vocabulary of English is studded with Greek words. The whole body of our literature is penetrated with classical allusions. We build in Greek lines of architecture; we march on Roman highways of land; we follow Greek and Roman patterns of political and social life. Not to understand these forces, these norms, is not to understand ourselves.”

We can not thus logically dispense with the classics in our educational institutions, or afford to make them of secondary importance in courses leading to the degrees of arts, without rendering our system of instruction defective at a vital point; and if the proportional number of our classically trained youth is smaller to-day than it was, say twenty years ago, all the more reason why the intrinsic merits of the classics should be pointed out and their value to literary training, as well as to the better study of the modern tongues, emphasized and dwelt upon. It is, after all, a question of ways and methods. How are Greek and Latin to be taught so as to awaken in the young the deepest possible interest and appreciation? There is no lack of zeal among specialists; no growing indifference on the part of students of

antiquity. Ancient manuscripts and texts are more accurately interpreted to-day than at any time since the revival of learning. The study of archæology and the science of classical philology have taken immense strides, even in this country, within the last fifty years, and the beauties and defects of the masterpieces of Greek and Roman literature have been discriminated and commented on to a degree that would seem to leave nothing more to be done in this field. The problem must depend for its solution mainly upon the capabilities of individual teachers. But we believe that Professor Gildersleeve has struck the key-note of the situation in urging that a clearer distinction be drawn between collegiate and university work,—between “the stage of mere appropriation, and the stage in which appropriation becomes assimilation, and assimilation results in constructive effort.”

Now, university work, whether in language or science, is based upon methods of independent research. Teaching specified portions, from day to day, of authors graded according to their supposed difficulty, valuable as the practice is, is yet only collegiate work, and should be supplemented in advanced courses by a more scientific method. In Germany the line is very accurately defined between the daily task-work of the gymnasium and the more independent labor at the university, where original investigation is encouraged in the pupil by the lectures and instruction of investigators. In this country, the line is not so clearly drawn. Our colleges are a mixture of the gymnasium and the university, and where the ancient classics are concerned, the work of the gymnasium preponderates. But, though the field of classical philology may have been ploughed again and again, if not in this country, at least in Germany, this need not discourage the earnest student from doing what he can of himself and reaping the benefit. What matters it whether he turn out anything new? The educational advantage of independent search of the truth is the same, though fifty others have covered the ground before him. A treatise of Cicero or a dialogue of Plato carefully perused with special reference to some question of ancient philosophy; a disputed point in the politics or religion of the ancients cleared up through a study of the sources; the development of grammatical or rhetorical usages traced through different periods of the language; a fragment of a lyric poet or even an ode of Horace or Pindar newly annotated;—this and work like it, anticipated in the earlier years of college life by frequent practice in reading at sight, would, it is believed, develop manliness and earnestness in the scholar, engender a more truly scientific spirit in dealing with literary and philological questions, and

do much to kindle in youthful minds an abiding interest in the literature, politics and modes of life of the great nations of the past.

Let the ancient and modern languages then go hand in hand for, we submit, that not otherwise can the true end of culture be attained. And it is to the classical teachers in our schools and colleges that the devotees of ancient learning must look to check the tide of indifferentism to their favorite studies. It is to the classical teacher that the believers in the refining and invigorating influences of antiquity repeat the *videant consules* of old, lest the republic of antique letters suffer lasting harm at the hands of those misnamed reformers who would overturn the columns of our educational system and drive out the classics from the land.

VI. Geology and Culture.

By Professor ALEXANDER WINCHELL, LL. D., University of Michigan.

I. WHAT IS UNDERSTOOD BY CULTURE.

It is considered educational orthodoxy to maintain that education, as the term itself implies, consists in such training of the human powers—but more especially the intellectual powers—as will make them of greatest service to their possessor. If this conception means exclusively culture, and does not involve the acquisition of useful knowledge, it should at least be said the acquisition of knowledge is one of the incidents of culture; and hence culture ought to be so sought as to involve the attainment of useful knowledge. For the present, however, I wish to contemplate the purely cultural aspect of education, and to inquire how geological studies stand related to the processes of pure culture.

In order that one's faculties may become most serviceable, they must acquire as far as possible, *alertness, effectiveness and readiness*. In other words, they must act with facility and rapidity; they must accomplish a large volume of their appropriate results in a given time, and must be ever ready to enter into action. They must be like a team which is quick, strong and in harness.

What, in detail, do educators contemplate when they speak of culture? What are the several powers whose alertness, effectiveness and readiness are best promoted by best culture? This is equivalent to asking what are the powers by whose most perfect activity we achieve most successfully the work allotted to us? The obvious answer is, all the powers by which a human agent seeks his ends—powers, physical, powers intellectual and powers ethical. Let us restrict the inquiry for the time being, to the powers intellectual. We will contemplate then, for the present, pure intellectual culture.

The term culture is much employed by a class of writers and speakers who extol lines of study demanding the exercise especially, of *verbal memory* and the powers of comparison and analysis. The verbal memory is the faculty of retaining and recalling mere words. It is

the means of acquiring names and of speaking them on occasion. It fixes phrases and quotations, and puts us in possession of them. It seizes on the words and forms of a foreign language, and makes them permanently ours. It is the spring of the faculty of verbal utterance; it confers effective power of expression. Its function extends to the retention of dates and other numerical expressions. Self-evidently, the verbal memory is an important means in the acquisition and communication of all knowledge, and the attainment of all ends to which knowledge contributes. To add alertness, effectiveness and readiness to the verbal memory is one important factor in intellectual culture.

Verbal memory however, appears to be psychologically analogous to the memory of reproduction of sounds and sights in general; and thus for our purpose, the general power of reproducing percepts may be designated the *sense-memory*. This power, in its further exercise is that by which we recall the features of individuals and attain an extensive acquaintance. It preserves what we have seen of the forms of matter in general — forms of animals, plants, scenery, architecture. Readiness of recognition is conferred by it and therefore power of detail in descriptions. It is the chief faculty of story-telling — so far as simple utterance is concerned. Facility in sense reproductions confers many advantages; and it is often the means of attaining successes which a superior grade of reflective intelligence fails to win. Aside from the store of facts which it sometimes holds at the service of the other powers, it is the most available instrument for what we call popularity. Though the vice of the excessive exercise of the sense-memory may be garrulousness, fecundity of meaningless details, the substitution of anecdote for thought, and general shallowness, yet it is quite manifest that the fullest exercise of the sense-memory can be productive only of advantage, if the judgment and other intellectual powers are brought into symmetrical and restraining development. The whole field of the sense-memory deserves careful exercise and strengthening, and this work must be one of the useful and legitimate elements of broad culture.

Embraced in the order of culture first referred to, is the exercise of the powers of *comparison* and *judgment*. Without affirming that these are one faculty, their constant association in activity leads me to speak of them as one process. In the detection of likenesses and unlikenesses, we discover grounds for judgments. Every judgment pronounced is an assertion of congruity or incongruity. As every act is the explicit or implicit expression of a judgment, a ready facility in the apprehension of the grounds of judgments is a cultural acquisition of prime importance.

The power of *abstraction* is another factor in that intellectual effectiveness which attaches to the lines of study extolled by the same class of writers about culture. Abstraction is the contemplation of one thing apart from all other things. It is simply an effort of attention carried to complete success. Attention is specially indispensable in the search for relations which are not immediately obvious—relations between things inconcrete or abstracted from tangible forms. Every continued process of reasoning depends on abstraction. All mathematical relations, mental powers and moral qualities are abstract. The power of abstraction is a faculty in constant demand, but especially in the higher efforts of thought. It is an important power falling plainly within the scope of general culture.

The faculty of *deductive reasoning*, while constantly employed in many familiar modes of mental activity, is also one especially demanded in many of the higher efforts of intelligence. It is pre-eminently the faculty of mathematics; but it finds continuous exercise in logic, in philosophy, in physics, and wherever principles or abstract truths are given and their consequences or outcome are demanded. Obviously, mental culture must embrace the improvement of this royal power.

But deductive reasoning implies a power of retention of abstract truths or principles. This is the *philosophic memory*. As an accessory and inseparable adjunct of ratiocinative processes, this power is indispensable in the higher mental activities; and its capability of perfect exercise must be one of the conditions of most efficient mental service. In other words, complete culture embraces an improved power of philosophic or thought-memory.

It will scarcely be doubted that general culture involves the quickening of the *imagination*, the training of it to moderation and consistency, and the employment of it as an adjunct in the efforts of memory and deductive reasoning. The picturing power of this faculty gives vividness to the reproductions of sense-memory, and readiness in the comprehension of descriptions. It is an invaluable instrument in the attainment of clear conceptions of the detailed results unfolded by deductive processes. The interpretation of the results reached by mathematical reasoning often depends wholly on the illumination of the field of exploration by the light of this faculty. It goes before discovery and discloses resting-places for thought in the midst of the gloom of the unknown. Its creative powers are often exercised under the promptings of analogy, congruity or contrast, and it thus becomes luxuriant in simile and metaphor. By its luminous apprehension of the forms and details of concrete things inaccessible to perception, it

contributes to graphic description; and through its resources of metaphor, both illuminates the thought and garnishes the style. Imagination is therefore a powerful instrument in the creation of new conceptions and the transmission of them to the intelligence of others. A mind well fitted for the creation of new conceptions possesses one of the most effective gifts of culture; and if, in addition, it wields the power of graphic and pleasing elucidation, its cultural gifts are brilliant, attractive and useful. Assuredly then, the imagination is one of the most important faculties to improve and strengthen by the arts of education.

I have mentioned the intellectual powers and processes somewhat in the order in which they are made the subjects of disciplinary exercise in the popular system of liberal culture rather than in the order of their importance, or in the order of their spontaneous development. Assuredly, however, the sense-memory would receive no content unless the *sense-perceptions* had been previously called into activity; and the picturing power of imagination would remain latent unless sense-perception had supplied the elements of its creations. Perceptions are the antecedents and conditions of sense-memory, of imagination and of induction. They are also the conditions of the awaking from slumber of those intuitive cognitions of necessary truths which regulate and control all human actions. Perceptions, in other words, are the antecedent conditions of all knowledge and of all power of knowledge. In a more obvious sense, they are our sole means of communication with the external world. They find, therefore, a more constant, and more diversified, and more essential use than any other of our intellectual powers. The most widely and variously exercised of our faculties are those which most demand the improvement of judicious culture. To learn how to observe most advantageously should be one of the chief ends of education. *The educational system which neglects to provide for the due development, and the early development of powers and habits of observation, supplies a form of culture which is signally defective.*

The power of *inductive reasoning* should not be omitted from the list of those deserving of culture. This, in truth, embracing observation which supplies its materials, stands first in the order of importance. Induction from observed data has been often pronounced the characteristic modern method of attaining to scientific knowledge; and Sir Francis Bacon, very mistakenly has been regarded in cant phrase, as the "founder" of the inductive method. So far as this is true, it shows with what aim and method we must proceed, if we would enter into the spirit of the modern march of intelligence. So far as induc-

tion has been pursued from the earliest dawn of reflective thought, it shows what is the inflexible and changeless mandate of nature in the method of marshalling one's powers for the search of truth. In either view, aptness and good logic in the drawing out of general truths from many details of observation appears plainly to be one of the essential ends of well-balanced modern culture. Without the acquisition of this power, education is glaringly defective. Whether Baconian or Aristotelian, the method by induction brings order out of a universe of discrete facts, and lays the foundations of principles which we build into the fabric of natural science. Induction has more than a service to science to perform. Thousands of the grotesque and unreasoned *non-sequiturs* of daily life are but the outcome of hasty inductions; and some of these, as in the search for petroleum, gas or coal, are neither harmless nor inexpensive. To train this generalizing power so that it serves us thoroughly and truly, is the part of education in its cultural aspect. I emphasize this truth, because it is quite generally ignored in our prevailing forms of education, at the same time that its importance seems to be foremost.

It is within the field of inductive processes that the true scientific spirit is disclosed and exercised. Besides the influence which it exerts in the realm of technical knowledge, the extension of its influence into society, politics, religion and general life would correct many of the evils of misrepresentation, slander, false argument, political mud-throwing and religious superstition.

In the advocacy of the popular form of "liberal" culture we hear much of the creation of a good "*taste*." If I understand the meaning of this expression, taste is the perception and feeling of congruity or fitness in the realm of sensible things. It seeks congruity, and takes pleasure in it. It knows how to shun incongruities, and is distressed by their occurrence. A good literary taste knows what juxtapositions of thought are consecutive, graduated and pleasing; and it knows what juxtapositions of words and phrases will avoid a jar, and best adapt expression to the thought. In music it appreciates and seeks such successional relations and harmonic combinations of tones as are congruous with each other and with our musical apperceptions, and such as are congruous with the thought or feeling which the composer seeks to express. A good artistic taste understands what forms and colors harmonize with the common norms of beauty and fitness implanted in the soul. It is preëminently literary taste which the prevailing culture claims to shape and perfect. Indisputably such culture, besides increasing the happiness of its subject, confers a

means of influence which improves the scholar's chances of success in the battles of life. Such control of the adversities of situation is, therefore, eagerly to be sought in our proposed systems of general culture.

The foregoing may be regarded as an enumeration and characterization of all the important powers which fall within the scope of intellectual culture. The term, so far as I know, is not employed, and can not be employed in any sense involving more than the educational discipline of these. What our linguistic and literary friends mean by "culture" can not refer to any occult influences bearing in any other direction than the improvement of these powers. It seems superfluous to emphasize so plain a proposition; but it becomes desirable to bring to the light of day, and to the terms of definite statement the whole secret and mystery of "liberal culture."

II. THE DIVERSIFIED ASPECTS OF GEOLOGICAL STUDY.

I wish next to point out the diversified aspects of geological study. Unlike mathematics and many other subjects of study, the science of geology consists of various ranges and kinds of knowledge. It is not a mere body of facts of observation, like political or physical geography in the ordinary acceptation; nor of facts of record, like history in the scholastic sense. It is not merely a field stocked with the products of imagination and sentiment, like popular literature. It is not merely a realm of abstract concepts and necessary ideas, like metaphysics. It is not merely a system of deductive processes all firmly bound together and to first principles by necessary laws of thought, like mathematics. It is not merely a department of mental activity where conclusions are based on probabilities, and moral certitude is the highest satisfaction afforded the aspiration to know, as in many ecclesiastical, political and educational questions. It is all these and more than these. Geology as the science of the natural world, embraces all which the natural world contains, all with which it is historically and genetically connected, and all the accessories and means whose employment contributes to the attainment of a knowledge of the world in its widest relations. It is the organization of all the sciences in a crusade for conquest in the realm of the unknown. To illustrate and justify a claim so large, I shall venture to recite in brief, the processes by which geology advances from the most familiar facts of observation, step by step, through generalizations higher and higher, to the grandest doctrines ever enunciated by science; and thence by a reverse or deductive process, to the detail of events from which actual observation is separated by intervals of space and time to finite powers impassable.

The beginning of all this fabric of geological science is what we see by the roadside, in the field, on the mountain slope or the ocean strand. In our daily observations are the facts which point the way to the loftiest generalization of the science. Let me confine your attention to a group of phenomena leading toward the fundamental doctrine of a cooling globe. About our very doors lie boulders whose hard and crystalline character proclaims the agency of intense heat. In the structure of the mountains which we climb, and underneath the lands which we inhabit are square miles of rocks similarly crystalline and vitrified. These are data of observation. They are data of easy and familiar and universal observation. They sustain the inductive conclusion that intense heat has been here. Other observations on ancient lavas — on palisades, dikes and extinct volcanoes, indicate that the heat has been sufficient to fuse the rocks. Has been — but is now no longer. The heat has subsided.

Thermal springs, geysers, artesian borings, deep mines, volcanic eruptions supply other observational data from which we induce the doctrine of a heated interior. The earth has cooled, but is still hot within. *The earth is in the midst of a process of cooling.*

This is a most fruitful principle. If the earth is a cooling globe, two inquiries next press upon us. Through what phases of existence has it passed in its remote history; and what vicissitudes is it destined to undergo in the future continuance of the cooling process? From what initium did the cooling process set forth, and at what finality will it end? No one can fail to understand that these are lofty inquiries; and that any well-grounded responses must lift our thoughts into the realm of sublime truth. But the history of the earth's cooling unrolls a vista through the past eternity. No human intelligence has been witness of the events. The *future* career of the cooling globe lies in the folded possibilities of events unreal and stretching into the eternity lying in the opposite direction.

But these lofty questions are not unanswerable. The events of terrestrial history succeed according to methods which lie revealed. There is no uncertain caprice in their order and relationships. Physical events run in grooves. What we observe discloses a trend which may be followed in either direction. By observation we have learned the laws of cooling, and the elemental and climatic changes which depend on changes of temperature. If the earth be a cooling globe, we may with confidence deduce its conditions and their concomitances in the earlier stages of cooling. Here our reasoning becomes *deductive*. We proceed from the inductive principle of a cooling globe, and from the primary principles of thermodynamics, and retrace the cooling

history. We see in imagination as we recede, a warmer terrestrial surface, a more tropical climate, and in correlation, more tropical plants and animals. We strengthen and verify the deduction by the inductive data afforded by the successively deeper sheets of ocean sediments. Farther on in the retrospect, the sediments are but beginning to accumulate. The mountains are still in embryo; the ocean is universal. As the scroll of terrestrial history continues to unfold, the ocean itself is noticed at its natal epoch; the clouds are discharging the ocean from their bosom. Here the possibilities of inductive confirmation disappear. Earlier than this no enduring rocky forms had existed. The greater heat had reduced all terrestrial matter to a fluid state which retained no records. This is the starting point of inductive geology.

But this is not the starting point of the process of cooling. With the eye of imagination, under the calm guidance of the reasoning powers, we behold in the remoter past a world of fire-mist, with the beginning of a central nucleus of molten matter. In the profounder depths of the eternity past, the fire-mist is conceivably in the condition of a gas. In a history of cooling, we have learned of no condition antecedent to this. The gaseous state of matter accompanies the highest temperature known. Do not understand me as enunciating the doctrine that the cooling process must have begun at a temperature at which all terrestrial matter existed as a gas. I mean only that the process of cooling leads always away from that state as the remotest possibility. Actually it may have proceeded from a condition thermally subsequent to this. The subsequent thermal condition may have been attained from some older state in which the constituents of the world were gathering together, and were yet even at a low temperature. I am not seeking to reason out that condition of the world which was absolutely primordial. I seek only to illustrate how, by an inverted deduction, we may recede toward a state of the world which antedates all human observation, and all the rocky records of inductive geology.

Now, having found a starting point—having assumed any remote condition as a starting point, we pursue by direct deduction, the course of events which, under the laws of matter, must have ensued in the progressive escape of heat from the terrestrial mass. We reason out the attainment, sooner or later, of the fire-mist condition; the precipitation of a molten rain and the growth of a molten globe; the condensation of aqueous vapor; the enveloping of the earth in a mantle of clouds; the descent of æonic rains, and the gathering of the universal ocean. Many other events collateral with these, we

logically reason out. By the aid of imagination, the scenes enacted become vivid and real, and our understanding of them improved. Now we see how and when marine precipitations must have begun; how the submarine floor by thickening became melted off below; and how, as sedimentary deposits continued, the deep-seated residual heat encroached upward into the earlier sea-sediments and transformed them. We see how and when the time arrived for the possible introduction of organic forms, and how they succeeded each other as the rolling æons of cooling wrought the terrestrial surface into changed conditions. Of all these post-crustal events the crust has retained some records, and the inductive evidences from them check and verify our deductive inferences.

Let us for a moment stand on a higher plane of observation, and rise to a higher generalization. There are other planets within the range of our vision, which exist under the same forms and motions and accompaniments as this planet. They are regulated by the same system of laws; they consist of the same matter; they undergo the same visible vicissitudes. Here is a body of data of observation—not indeed, with unaided vision, as when we noted the aspects and conditions of the vitrified and crystalline rocks; but with the aid of the telescope, the spectroscope, the polariscope and the crucible. From these data we formulate the inference that all the planets revealed through our instruments are bound together in one system; have had a common history and are moving to a common destination. This larger generalization produces in our minds a conscious expansion—a larger apprehension of the scope and unity of the cosmic plan. This higher attainment of thought is attended by a grateful emotion—a spiritual delight; and, if we are philosopher enough to contemplate plan as the correlative and expression of mind, we feel here, in the presence of this grand disclosure, a higher certitude of Supreme Mind, and a deeper seated and more enduring sentiment of devotion.

At the level of this loftier generalization, we conceive the matter and the forms of all the planets merged into one. Perhaps the common mass is in the state of fire-mist, and luminous. Perhaps it is a heterogeneous assemblage of mineral particles and masses undergoing condensation, and destined in a later æon to evolve the heat which will develop luminosity and reduce portions to a state of fire-mist. As before, I care not to define precisely the actual state of the matter of the solar system which was primordial. We ask only a rational commencement—a condition such as involved all later conditions. There must have been a time—so we reason—when the

evolution of heat began to be surpassed by loss of heat. From that epoch cooling and contraction began. Rotation is a primordial, necessary condition of all separate masses of cosmic matter. In a rotating, cooling and contracting spheroid, the changes of form and condition resulting are the subjects of calculation. Even if there be alternative lines of vicissitudes, one of these leads on through processes of annulation and spheration — with possible secondary annulation and spheration — on to such an outcome as we see exemplified in the assemblage of planets and satellites constituting our solar system. And this earth on which we dwell is a particular outcome of such an evolution — so grand, so vast, so ancient. And all that is now of the earth was involved in those æonic vicissitudes. The bone and flesh and nervous matter of our bodies existed in that primordial fire-mist — in those annulating spheres — in that fervid atmosphere — in those ancient sediments — in the shells of primeval molluscs — in the framework of generations of reptiles — enduring as matter; and our plans of organization give expression to thoughts no less enduring. Such is the unity of the organism of the planetary system; and such the unity of man with the organism of the worlds.

In this *regressus* of thought, we rise to a still higher plane. The sun appears as the residuum of a prolonged process of planetation. By the aid of our instruments we learn that the stars are other suns. Imagination kindles and emotion warms at the suggestion of such a fact. The stars then, are so many centers of planetary systems completed. Yes, to the utmost limit of the visible universe the same modes of world-life prevail as are exemplified in our own system — the same as are revealed in continental masses and granite cliffs, and ocean-sediments on this orb to which we have been assigned as its inhabitants. There must be then, other planets. There must be other inhabitants. If other inhabitants, their intelligence is akin to ours; for otherwise the universe around them, so interpretable to us, would be uninterpretable to them; and the fitness of things, which reigns everywhere within our cognizance, would be turned into a contradiction of the testimony of the universe. Reason refuses to credit this. Other intelligences there are, to whom the universe has the same meaning as to us; who think as we think; who are already familiar with our ideas, or are ready to receive them and impart to us their own.

Do you not find such ranges of thought expansive, ennobling, spiritualizing? Possibly you are saying this is not geology. No — not in the school-book sense. But geology in the stricter sense leads to the high-swung bridges over which thought passes by an uninter-

rupted continuity of path, into the realms of philosophy and theology, whose light tinges the clouds which engirt a primeval world.

I said that the grooves of passing events run into the distant future as into the distant past over which I have transported you by a rapid flight. By direct deductive reasoning from the generalized principle of a cooling globe, we are able to depict *future* vicissitudes with no less certainty than those passed. We anticipate a frozen world and a darkened sun. From the generalized doctrine of slow continental degradation we depict beforehand the destructive work of future ages. From the action of the moon on the lagging tide we are enabled to foresee a lengthened day; and finally, synchronistic rotary and orbital movements of the earth, accomplished by a slower action of the sun on the solar tide. Through the operation of a resisting medium—whether ethereal, meteoric or molecular—we look forward to a general gathering of all the dead planets at a common sepulchre. Then, by completing the parallelism already delineated in reference to the past, we learn that the unrolled history of this world represents that of all the worlds of our system; and the unrolled history of the system pictures that of the firmament. And now the grand and culminating inference of all science looms before our intelligence in majesty awful and inspiring: *The history of matter is one in all the bounds of space, and in all the æons of time past and time to come.* The vicissitudes of yesterday are a paragraph in the annals of universal matter. In that totality every human life is a constituent part. Man stands in the midst, and casting his mental glances backward and forward, affirms and feels his unity with all. Man only an organism. Those glances are not the rays of sun or star—they are the thoughts which imperishable and unchanging mind has written on the forms of star and planet and organism. And thus out from the forms of matter as they perish and disappear, rises an entity which neither changes nor disappears, nor yet endures as mindless matter—but endures in self-consciousness and self-activity, and constituting my essential self, unveils to vision another universe, where suns neither wax nor wane, and the limitations and infirmities of changeful matter never interrupt or ruffle the gentle current of eternal being.

III. THE INTELLECTUAL POWERS WHICH GEOLOGY CALLS INTO EXERCISE.

These thoughts are presented with no intent to expatiate on the themes of science. My purpose is only to indicate the vastness of the range of cognitions and contemplations to which the study of geology invites. It begins with simple facts of easy observation. It

calls the *percipient powers* into pleasant exercise. In observing separate facts we *compare* them with each other. By processes of *judgment*, we pronounce them identical, or similiar, or diverse. If similar, we abstract the particular characters in which the similiarity consists, and decide whether they are trivial or fundamental. The wide ranges of facts brought under observation are distributed into groups. Names for the facts there must be, and thus arises a technical nomenclature which gives us additional exercise in *verbal memory*. In extending our knowledge of facts beyond the sphere of personal observation, we resort to the records of the observations of others. We are led to the use of *foreign languages*. We obtain the cultural benefits of *linguistic study*. Our various groups of facts lead to various *generalizations* or interpretations. One group points toward a former high temperature on the earth, as we have seen. Another convinces us that the lands have been covered by a universal sea, and that the bedded rocks are but its sediments. Another group indicates the magnitude of land erosions in the past, and the complete obliteration of ancient continents. Another group of facts establishes the doctrine that the earliest animals were invertebrates; that the oldest vertebrates were marine; and in short, that the order of succession in the advents of animal types was identical with the order of rank. Within each of these broader and more obvious generalizations are others of more limited scope. If the first vertebrates were marine, so the first marine vertebrates were not fishes of typical structure, but of archaic forms now long extinct. If land vegetation appeared after marine, it was at first only a flowerless jungle. The great body of geological doctrines consists of inductions like these, founded upon facts of observation. Many, very many of the facts are near and familiar; many are remote and unfamiliar. A large part of the body of geological science consists of a record of facts. The generalizations are not postponed till all the facts of the science are catalogued. We begin to draw our generalizations while yet we must hold them as merely tentative. Final generalizations may displace them; and even these, in some cases, may prove not to be final, or may prove to be wholly erroneous. By a law of our minds, we begin to generalize as soon as two or more cognate facts are brought together; and continually test and revise our generalizations as long as new facts of the same group prove incompatible with earlier generalizations. Then we have reached a principle or doctrine. Thus, it is a doctrine to-day that Dinosaurs did not survive the close of Mesozoic time. But if, to-morrow, we find the remains of Tertiary Dinosaurs, that generalization must be rectified.

Thus in dealing with the great body of geological science, we keep the observational faculties in training. With this, we exercise the powers of *sense-memory* and of *language*. This training holds a large place in the exactions of geological study. So far as trained quickness and exactness of perception constitute mental culture, the study of geology is eminently cultural. In dealing with the same great body of the science, we keep the *inductive powers* in constant exercise. Their activity, as I have said, is the characteristic activity of modern intelligence, in distinction from mediæval and ancient thought. If the training of the mind in those modes of activity which tend to identify it with modern thought, and make it master of the characteristic results of modern thought is a useful training, and a desirable training, then the habits of inductive reasoning fostered by geology constitute an eminently valuable form of mental culture.

But with these studies come various forms of incidental culture. Many of the facts are recorded in works of travel and description, written in style of high literary excellence. Allow me to cite Hugh Miller's "Old Red Sandstone," Major Powell's "Exploration of the Colorado River of the West," Captain Dutton's "High Plateaus of Utah," Miss Bird's "Fire Fountains," or, in a different field, the Duke of Argyll's "Unity of Nature." If the student is called upon to record his observations, as well he might be, he may acquire a copiousness of diction and a beauty of *style* not inferior to that promoted by essays on historical or romantic themes. More indirectly, come the acquisition of languages, and the *enrichment of the vocabulary*.

With these forms of geological study will be noticed an accessory training of the *imagination*. The picturing power is demanded even in bringing into juxtaposition in thought, absent data of observation which have to be compared together. Still more is it demanded in acquiring a vivid comprehension of data presented through descriptions. Especially is this demanded in the study of descriptions of fossil remains unaccompanied by delineations; and not less in the drawing up of such descriptions. I know palæontologists who declare that a mere description of a fossil shell is unintelligible; but, provided the description is good, it would become intelligible with improved picturing power in the imagination. The facts show that in the study of descriptions of fossil remains and of other facts not fully illustrated by drawings, the imagination is kept in constant exercise. The cultural results on this faculty are therefore of great effectiveness and high value.

In an accessory way, also, comes the discipline in the *art of delineation*. It is impossible for the geological observer to record his obser-

vations without the ability to accompany them with drawings. If the student has had no instruction or practice in drawing, he will soon obtain the practice, and then the instruction will be unessential. On almost every excursion the student or investigator must execute from nature, geological sections or geological maps; not unfrequently, he must delineate some fossil form which can not be removed from the rock, or embody some delineation in a description. I am aware that finished drawings exhaust much time, and are commonly confined to special artists. Still, drawing is one of the demands of geological study; and this artistic acquirement is one of the forms of culture for which the science of geology provides.

These various forms of mental exercise and discipline are incident to the acquisition of the facts and doctrines of geological science. I have illustrated a higher range of geological truth, and I wish to impress the fact that its acquisition calls into exercise another range of intellectual powers. The faculties of *deductive* or *à priori* reasoning come into play in the attempt to proceed from an admitted principle to the particulars which it involves or necessitates as consequences. Geological investigation very frequently takes the deductive form. It does not often proceed from necessary principles, as in mathematical reasoning; but generally, from a principle or truth established by previous inductive research. When a distinguished American geologist described a large number of three-toed tracks found in the brown sandstones of the Connecticut valley, and ascribed them to extinct species of birds, the elder Agassiz reasoned deductively when he declared that they could not be bird-tracks, since birds, according to all inductions, had not begun to exist at so early an age of the world. Similarly, the geologist declares that coal will never be discovered in the valley of the Hudson river, however black and misleading some of the slates may be; since all productive coal measures have been found to hold a higher stratigraphic position. More marked and prolonged employment of deductive inference is observed in the treatment of those geological problems which admit of the application of the methods of mathematical analysis. Some of these problems are as follows: The temperature of the earth's interior; the thickness of the earth's crust; the condition of the central matter of the earth; the existence of tidal effects in the earth's general mass; the greatest possible altitude of mountains; the submeridional direction of mountain chains; the sufficiency of cooling wrinkles for the total of mountain folds. Then, in that higher range of geological investigation which may be styled comparative geology, or an application of the doctrines of geology to the conditions and histories of other planets, we find

many uses for mathematical methods; as in the study of the moon's atmosphere and her general physical condition; the conditions of Jupiter and of Saturn and Uranus, and the light they throw on past and future conditions of our own planet.

Without the application of mathematical analysis, the general processes of deductive reasoning from the principle of a cooling world, afford, as I have shown, large and valuable exercise for the higher intelligence. It is a regal power by which we explore in thought, the distant ages of terrestrial history, which elapsed before even the race of man existed; or the æons of cosmic vicissitudes undergone before even the world had existence. It is a regal power by which we may stand here and glance down through the æons of terrestrial changes yet future. The past has been real, but the future is unenacted. The intellectual eye, through the telescope of geology, pierces through all potentiality. It is prophetic. It enables us to live alike in the æons of the past and the æons of the future. It confers on us a limited omnipresence and omniscience. No enlightened man can possibly deny that such exercises of mind are lofty, noble, cultural—cultural and improving to an extent scarcely paralleled in the circle of scientific thought.

There are those—among them a few geologists—who affirm that these lofty deductive reasonings are little more than flights of imagination, and that the results do not belong to the body of recognized science. These men conceive geology as properly restricted to its body of facts and generalizations. It is easy to show that such a dogma is impossible of observance, and is violated daily, even by those who acknowledge only positive geology. But a thoughtful consideration of the mode of evolution of our grand deductive conclusions will show that they are *reasoned out*, not imagined. The difference between a mere romance and a romantic inference is as wide as the beginning and conclusion of terrestrial history. It can not be claimed that the particular *denouements* which we picture have been, or are to be, actual events. The pathway of reasoning often bifurcates, and we may pursue either road to conclusions. There are always concomitances lying alongside, which are the outcomes of causes acting outside of our trains of reasoning. These may determine whether the actual course of events will pursue the right or the left. We know, however, that it will pursue one or the other; or at least, some course within the scope of rational anticipation. With all these qualifications and uncertainties of actual detail, the sublime fact remains that our science enables us to mount into the æons past, and plunge into the depths of the æons to come, and get visions, even if dim, of the stupendous

events flowing out of the exercise of infinite power and infinite intelligence in the realms of infinite space and infinite time.

Let me add that if these visions are absolutely unreal, the exercise of the intelligence is still the same. It is an exercise of the loftiest powers of the mind, and if it leaves in our possession no real knowledge, but only culture, it stands on a footing equal with some other studies deliberately pursued for their cultural influence—and that even on a lower range of faculties than those employed in the higher inductions and deductions of geological science.

It must have occurred to my hearers that much yet remains to be said of the cultural influence of the higher reasonings of geology. I allow myself a few words further. Imagination, I said, is not the creator of the histories, past and future, which I have depicted in the vicissitudes of the world; but it is the indispensable instrument for securing to the understanding a vivid apprehension of the reality, the nature and meaning of those vicissitudes. These exercises of the higher reason keep *imagination* in constant and pleasing activity, and thus train a power which sheds over the logical products of the mind a vivid radiance, and often lights the way for the understanding into the dark regions of the unknown.

The loftiness of these themes demands a lofty *style*. To portray them to the common intelligence—always eager to learn of them—demands such imagery and metaphor, and lucidity, and earnestness, as belong to the higher ranges of polite literature. If a good use of language be one of the results of culture, here are examples for imitation, and here are opportunities for scholastic exercise.

In commencing this discussion I proposed to confine my treatment to intellectual culture; but the friends of geology might well charge me with remissness if I should fail to remind you again of the *moral and spiritual improvement* which come from such contemplations as I have pointed out respecting the unity of the realm of nature, and the revelation of Supreme Intelligence which we read everywhere in the plans and methods of nature.

I could not say more within reasonable limits of time. Enough, I hope, has been said, to establish the proposition that the study of geology is suited for *universal culture*. In its various grades and departments it calls into exercise *every power of intelligence*, and even comes into moving relations with the ethical susceptibilities. What more is universal culture? What more is symmetrical culture? Who can claim any discipline of intelligence as not reached by the influence of geological learning? I shall not institute comparisons in detail. I leave it to my hearers to seek out other lines of study

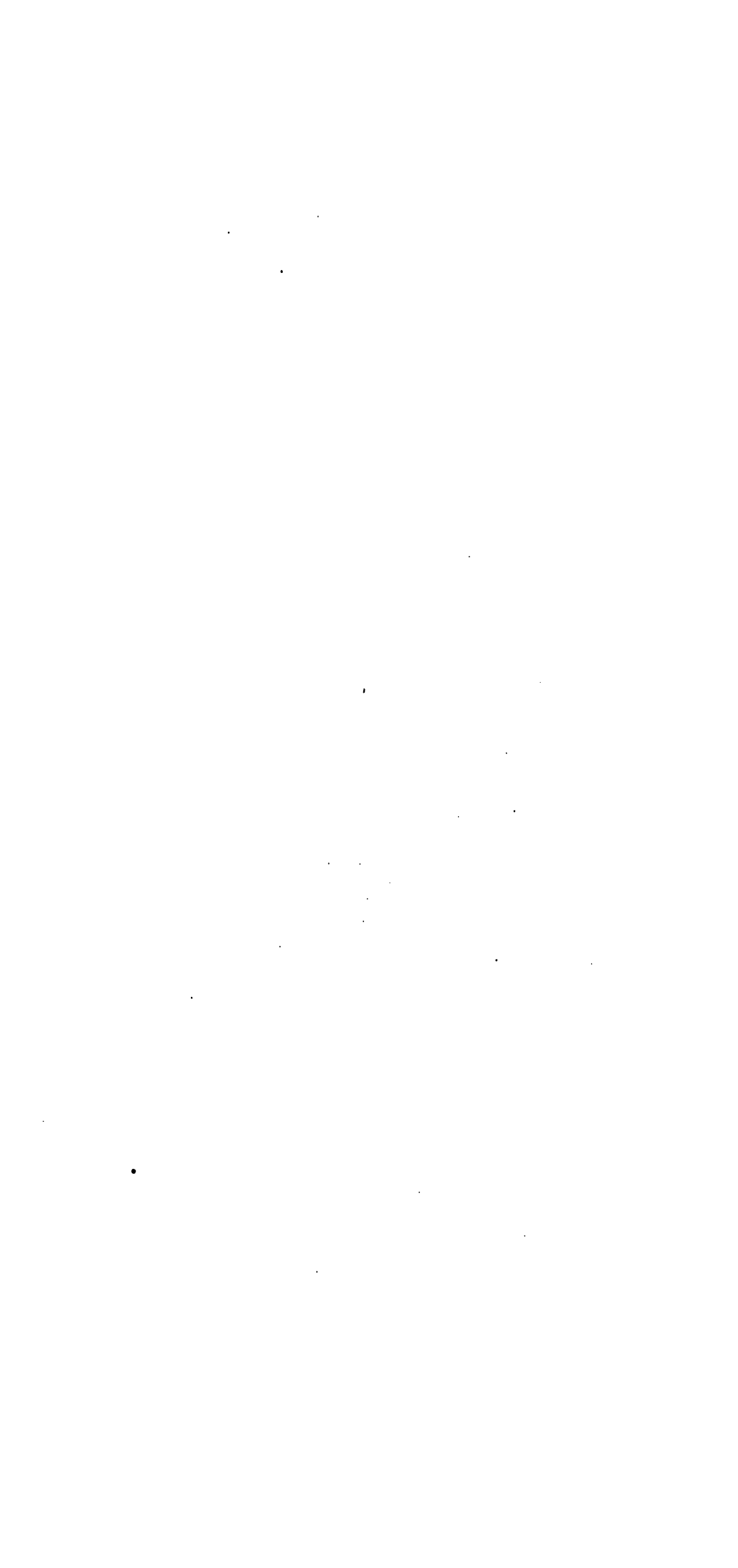
capable of a wider or more profitable culture. Their efforts will but enforce the truth of my conclusion.

I am not so absurd as to maintain that geology is the only science to be studied, or that other sciences or literatures do not afford particular kinds of culture to a greater extent than geology. I only desire the truth to be seen, and acknowledged, and acted upon, that geology is a study capable of culture more diversified than is found in the pursuit of those studies often prescribed exclusively for their cultural value.

I have presented geology simply as a means of culture. I have not considered it as *a means of useful knowledge*. An elucidation of the utilitarian side of geological study would show that in geology we possess the means of uniting general culture with the attainment of useful knowledge. Thus is doubled the claim of geological study upon our regards as educators and promoters of the best civilization.

These positions being established, it might still remain to examine *the relations of geological science to the developing intelligence of the young*. Though this also is a field which can not now be entered, it would be easy to show that many of the observational data of the science are precisely suited to the stage of intellectual development of young pupils; other data, and the inferential principles of the science, to pupils of progressively maturer years. And, finally, it would be easy to illustrate practically the *observational method of introducing the familiar elements of geology to pupils of tender years*, and proceeding by gradual expansion and elevation of the method to ranges of geological thought suited to pupils of full maturity.

I leave the subject to your reflections. What I have said is true or untrue, or partly true and partly untrue. If true, educators can not, as reasonable persons, permit the science of geology to remain under their reproach and neglect as a materialistic science — “a bread-and-butter science.” They must act; they must acknowledge the truth, and allow geology to come into the enjoyment of its rights in the field of education. If what I have said is untrue, my positions demand an impartial refutation, for a wide and powerful public sentiment is gathering at my side. If they are partly true, I shall continue to maintain that the true is the larger part, until my numerous and powerful literary friends honor my views with the electric light and heat of their destructive criticism.



VII.

Shall Academic Studies be Taught in Normal Schools?

By Principal F. B. PALMER, Fredonia Normal School.

MR. CHANCELLOR, LADIES AND GENTLEMEN OF THE CONVOCATION.—In the Olympian contests he who outstripped all his competitors in running, he whose strength and skill gave him mastery over an antagonist, or he whose fleet steeds coursed the stadia with swiftest feet, received the prize, and was crowned with victory. In the contests of chivalry he who unhorsed his rival, or caused him to bite the dust, won the hand of the fair lady to the favor of whose love he ascribed his victory. In the contest where truth is the stake not he who convinces but he who is convinced receives the prize. To one sincerely engaged in this contest the most skillful argument in favor of a wrong conclusion does not count against the most simple statement of truth. Error clothed in the most brilliant language loses all its luster when placed side by side with truth. The most weighty and convincing proofs of the false, kick the beam when put into the balance against truth. In this contest, too, the victor has another advantage; he is assured at the outset that he will not be wronged by the caprice of the judges. No herald is required to proclaim the victory. Truth rises of her own accord and kisses the lips of the champion who takes her glove, and fights manfully, that he may possess her for himself; and although the touch may not make them eloquent, it will give sweetness and strength to the words they utter, and all who really love her, even though enemies before, will love him now and applause will be given only for what truth has done. For my own part, I desire in this discussion, and I have no doubt that those who are to follow me will desire, to keep the eye fixed on truth alone as the goal.

Holding this purpose in mind, I shall strive to present, with equal fairness, every phase of the main question at issue that seems to me important in leading to a just conclusion. I shall not attempt to argue for one side of it merely, leaving it for some one else to champion the other side. No doubt others will view it in a different light from myself, and give greater force to some reasons than I shall allow,

and there will be a variety of opinions expressed and argued; yet, so far as I am concerned, I desire to see the question discussed with a common purpose inspiring all. Though there may be differences in the point of view, the end should be the same.

The educational question is broader than any one man's intelligence. We may not hope to see much done to settle disputed points even in such an assembly as this. But that which is attempted should be considered with the broadest intelligence we can bring to bear upon the issues raised. We should not be swayed by any narrow and selfish views of what we conceive to be merely the immediate interest of one class of schools, or advantageous in one line of educational work. Nor should we accept, without question, what exists as a foundation well laid for the future structure. Some things may have been done well and some not. It is possible that the future will require modifications which will radically change some of our most cherished notions. So far as we can, we ought to go back in such discussions as this to ultimate principles, and take nothing for granted.

I might say that the normal system as it exists to-day, embraces instruction in academic subjects, in our own country and in all countries where schools are established for the instruction of teachers. I might trace the history of this system, and I should find that the same had always been true. The first teachers' classes were formed of students engaged in the common studies of the school, and in connection with the regular school for academic instruction. The students in the first teachers' seminaries established by the State, which was in Prussia, the home of the normal school, were required by express provision, to continue for two years the studies pursued in the primary schools. I might say that wherever I look I find that the term normal school, or teachers' seminary, means a school established to fit teachers to teach, by giving them instruction and training in the subjects taught in schools generally, and in the science, methods, and history of education. The curricula of these schools everywhere, allot from one-half to three-fourths of the time to academic subjects. I might say that the question raised at this hour is, whether the normal schools shall remain normal schools, or shall be changed to something else and be called by the same name. Here I might rest the case, and demand of others the reasons for the change they would make. This seems to me perfectly fair and legitimate, if I were conducting this discussion as a debate, and indeed, it would seem to be the only proper procedure; and I should require reasons sufficiently strong to justify reversing the uniform practical judgment of the men and governments engaged in the work for more than 150 years. I

might say, if the question is to be opened at all, let it be opened by those who propose a different system. But I prefer to consider the question as already open, and review from the beginning the reasons for the present system, and find, as truly as I can, what a normal school ought to do.

In my quest for actual reasons I naturally go first to Prussia. But when I go there and ask what reasons they give for teaching academic subjects in the teachers' seminaries, I am told they never give any reasons. They do not discuss the questions. They have never thought of not doing it. The system has grown up as naturally as wings are furnished to a dove. It began in charity, without State aid, when suitable persons who were willing to devote themselves to teaching were offered free instruction by the benevolent, to prepare them for their duties. They seemed to need to know what to teach quite as much as how to teach, and benevolence took them where it found them, not thinking there was any essential difference in their claims upon it, whether they needed instruction in arithmetic or in the methods of teaching arithmetic, to make teachers out of them. This system was adopted by the State, and extended from State to State with no apparent thought that a preparation of teachers in subject-matter is not a legitimate part of normal school work. So far as I can discover no serious attempt has ever been made to justify the system in this respect by any line of affirmative argument. The question has been opened by objectors, and the defense has been desultory like the attacks. Let us see then if we can find by an independent investigation an affirmative argument of weight, before we consider the objections that may be raised.

In looking at the question from this point of view it presents to me the four following propositions for consideration:

1. The teachers of a class should be more thoroughly instructed in the subject he teaches than the average pupils in the class.
2. The average pupils of a class become teachers of succeeding classes of the same kind and grade.
3. There must be supplementary study of the subject-matter somewhere or the work of the class will degenerate.
4. This supplementary study is work done in preparation for teaching and is essentially normal school work.

Let us consider those propositions in their order.

1. The teacher should be more thoroughly instructed than the average of his class. Occasionally a particularly bright pupil may display a keener insight into a subject, or a broader comprehension of it, than the teacher, without injury to the teacher's influence in the

school; and sometimes a teacher may take up an extra subject in which he is no better prepared than his class, and in consequence of his better general preparation be able to keep in advance of them, and teach his subject creditably. But he can not afford to be as poor as the average in his classes, nor trust to his ability to keep ahead of them without thorough preparation to begin with, except in rare instances. One of the secretaries of the Board of Regents recently stated to the normal school principals of the State, that he did not consider the knowledge of arithmetic, grammar and geography required to pass Regent's examinations in those subjects enough for those who are to become teachers, nor did he think it practicable to make the examinations high enough to be a test of such merit, at least not in all these subjects, for they were made for the average of the class, many of whom did not care for so much work. But if the average of the present class can not teach the class properly up to the standard now required, neither could the average of an advanced class, were it feasible to advance the standard, properly teach that class up to its standard. The principle stated, thus, must be considered as general.

2. It is the average pupil of a class that is to become the teacher of succeeding classes of the same kind. The brighter scholars are not satisfied to become teachers in the schools where they have received their preliminary preparations. They will either seek positions in higher schools, where they finish their general education, or more probably engage in other professions, or in business. It is from amongst average students, or students below the average, that the mass of teachers must come. An intelligent member of a board in charge of a union school recently told me he had been looking over the names of the graduates of their school who had gone out to teach, and who were actually doing the teaching in the schools around, and five-sixths of them were below the average of their respective classes, and had been so in all the grades. This may or may not have been an extreme case, or it may have been an extreme statement of a common case. I do not know, but it seems to me certain that we can not fairly expect to get our average teacher from the scholars that stand above the average of their classes. If any one's experience justifies a higher expectation, I believe it must be an exceptional, as well as a happy experience.

3. In the third place, it follows from the two preceding propositions, that the average teacher must have instruction supplementary to that received in the grade of schools which he is to teach, or the school will degenerate in his hands. It matters not how high the

standard reached by a school, the average graduate can not take the school, with no further preparation than that received in it, and maintain the standard. The principal of a high school does college work, and a professor in college spends years of study on the one subject he is to teach before he ventures to take all the classes in which he was himself a student. I have spoken above of the lack of sufficient knowledge to teach the common English branches in the case of the average student who passes the Regents' examinations, and of the necessity for his having supplementary work in these subjects if he is to become a teacher. When we remember that this was said of the better class of graded schools, picked schools, less than 300 in the entire State, and think of the more than 10,000 rural schools lower in grade and more poorly equipped, we may imagine how pressing the necessity is.

4. In the fourth place, the supplementary work spoken of is required as a preparation to teach. It is a part of the preparation which the profession demands. It is as essential to the successful teacher as good methods. It is as important to the school that the teacher have this preparation as skill in teaching. So evident has all this been that it has never been questioned until recently after the practice of it for a century and a half.

Were there time, many things might be said to show the naturalness of this connection of instruction in subject-matter with methods and practice, from the reciprocal influence of each upon the other, and the combined influence of the two together in building up a professional spirit and character. A teacher in a normal school keeps more constantly in mind the principles of methods which are there taught, and the pupil has the application of methods constantly before him. In the direct study of methods, too, the pupil has the practice of his own teachers immediately before him, to illustrate and enforce the principles he is learning. And, again, from the associations and the constant appeals of his normal teachers, he studies his subjects with the prospect of his teaching them ever before him, and thus acquires a habit of looking at the subjects he studies from a teacher's point of view. He tries to clear up, not simply the difficulties of a pupil, who prepares to make a recitation, but of a teacher, who is to teach the subjects. He goes over the ground, not simply as a follower, but as a guide. These, and other points of a similar character might be dwelt upon, but there is only time remaining to ask what reasons may be offered for dropping out from the normal schools this, which has been, up to the present time, the larger part of their work.

1. In the first place it may be said we do not want unnecessarily to duplicate the expensive provisions for education. There are many schools in which sufficiently thorough instruction in subject-matter is now given. Let these schools do this work and let the normal schools give methods and practice which can not be given so thoroughly in the non-professional schools. I want to give all the force to this statement it will bear. The claim that a sufficient amount of thorough instruction is given in some of our best schools is just. If this were not recognized by the normal school there would be good ground for complaint. But the contrary is the fact. The normal school courses are so arranged as to provide for the graduates of such schools, and pupils in them are encouraged to complete their courses at home and thus go to some normal school and take their methods and practice alone. It would be a great gain if the normal school could get ten times as many of this class of students the coming year as they have had the past. And I have no doubt that this result would be gained, if the union schools and school boards would make the same effort to secure for the teachers of the State thorough preparations in methods and practice which the normal schools make to secure thorough scholarship.

But after all has been granted that has been claimed for the class of schools spoken of, they are the exceptions and not the rule. Would it not be possible, it may be asked, to make them the rule and not the exception, and thus avoid the necessity for supplementary instruction in subject-matter for those desiring to become teachers? No, not possible if the propositions I have been arguing are as true as they seem to me. These schools have superior teachers, but the teachers of all the schools considered together must rank with the average no matter where this standard is placed, and as a class they must have instruction that is supplementary to that given in their schools. More than one-half the pupils in our schools at present are classed as rural, and besides those a large part of the other schools could not support supplementary classes without a violation of the very principle of economy which is here advocated. The only way is to have the supplementary work specially provided for.

2. In the second place it may be said, that pupils in the average school may be compelled to go to the better class of non-professional schools and take their supplementary training before being admitted to the normal school. Why? Is it not in the line of their professional work? Yes. We are only considering work that is done and required to fit teachers for their profession. Would it save the pupils money? No, for they would be obliged to go from home the

same as they may now go to a normal school. Would they have better advantages? It has been the subject of complaint that the normal schools could afford so much better advantages as to render competition with them unfair. Have the few schools that have been so enterprising and fortunate as to secure superior advantages for their home pupils, a claim on the great body of pupils outside, to come to them and swell their numbers and help to fill their treasury? This is a narrow and selfish view to take of the question of education. While it has been thought best, since the common schools are under local management, that they should be largely supported by local taxation, yet, by the abolition of the rate bill, by the passage of the free school law, by the organization of union school districts, through the Superintendent of Public Instruction and other educational managers, and through the Governor and Legislature, the State has said again and again that its policy is to educate its youth so far as it undertakes their education, by a tax on property, and not by a tax on its children. Why should there be a thought of competition, and not rather a strife of honorable emulation to do the most good that can be done for the boys and girls, that are to be the men and women of the future State? What higher claim has a poor boy in the city of New York that the State should authorize his father to vote a tax on the Astors and Vanderbilts, to give him a superior education than the poor country boy, that the State should make such provision that he, in order to have as good instruction, should not be required himself to pay a tuition tax in addition to the extra expense of living away from home? If in the transition from the old rate bill system, the State has not as yet found it practicable, by the township system or any other means, to remedy this inequality, it must certainly seek for a remedy. The time will soon come when the State will be held as criminally negligent if more than one-half of its children of school age are compelled to take up with such inferior advantages, or pay for that which other children, by grace of the State's taxation laws, receive free. Why should it be offered as a reason for complaint against the State if, meanwhile, it provides in a small measure for work below the highest, which the best schools can do, and supplements the best instruction which the larger portion of the children can get, without tuition-tax, with free tuition for such as are to become teachers, in the natural place for such instruction, the normal schools? Is not the objection a selfish one, and would it not be better to seek some other remedy for evils complained of than to force an unnatural separation of the different branches of legitimate work in the preparation of teachers for the schools of the State, even if such attempt should result in a slight temporary relief?

I purposely omit to speak of the many incidental troubles of which some schools complain, either to palliate them, or suggest remedies. There is need of better support, there is lack of harmony and unity, there is not everywhere that generous sympathy for all which ought to run through the brotherhood of those who profess to be educated. But, whatever the relation of the normal schools to these evils, it does not affect the great principle we are discussing, and I desire to keep that separate, and discuss it on its merits, and leave other questions to other men or to another time. The question before us now is whether, as a matter of principle, any instruction in subjects should be given in normal schools. It seems to me from the considerations given above, without any appeal to the history of these schools, that there will always be a necessity for supplementary instruction for teachers, whatever the condition of our public schools, and that the State has a right to furnish this instruction at public expense, if it has a right to furnish any instruction for the education of teachers; and that it is wise, economical and fitting, to teach the academic subjects, so far as they must be taught as supplementary work, in the same schools in which methods of teaching are given.

REMARKS BY PRINCIPAL J. C. NORRIS, CANANDAIGUA ACADEMY.

I read in the statutes for the State of New York that a normal school is a place "for the instruction and practice of teachers of common schools in the science of education and the art of teaching."

I have for some time known that our normal schools are yearly sending out hundreds of graduates. I have tried to enlarge my acquaintance among the common school teachers of my locality and become more intimately acquainted with the many who must be teaching as they learned at the normal school. But normal school graduates among the common school teachers I have seldom found. I have been astonished at this, for if any region of the State should be well supplied with such teachers surely ours should be, so near Oswego, Brockport, Geneseo, Buffalo, Fredonia. More than once during the past ten years, and from more than one center, I have made careful inquiry and have failed to find a single normal graduate teaching in any common school within a radius of more than ten miles. There must be some reason why, when the State makes lavish expenditure to fit teachers for its common schools, it fails to get them there.

I know nothing about how many may be holding positions as assistants in our union schools and academies, but I do know that but few are found at the head of such institutions. Of the 266 principals

mentioned in the last Regents' report, only thirty-nine were educated in normal schools, thirty-three in academies, and 194 in college. It is a well-known fact that a large number of our normal graduates seek and obtain situations in Western States. Many of us are more or less interested in home missions, but I don't believe our zeal in such undertakings will lead us to think this State should educate teachers for the Western States.

I am not here to condemn normal schools; I know something of the great good they have done. I have all respect for the very able instructors who teach in them. But evidently something is wrong. Surely for all the money expended the State does not get value received.

At one time, not long since, I took pains to look up the record of all the students who had attended a normal school, but who naturally would have been pupils of the academy with which I was connected. I counted eleven. Several of them had taught district school before going to the normal. After graduation, one taught one year near home and then secured a school in a Western State, another taught one winter and then abandoned the work, another taught two years and was tempted away to try farming in Dakota; one is still teaching in her home county, but seven (7) have not taught school in this State one day since they left the normal school. I have heard somewhere that every graduate of a normal school has cost the State from \$1,500 to \$1,800. Was the money expended on these eleven a good investment? I asked some of these pupils why they left the academy for the normal school, and the answer invariably was: "Because we can get free books, free tuition, study the same subjects as in the academy and pay no more for board."

I do not doubt that many of the members of this convocation can relate similar experiences. Do you think, sir, that these persons I have mentioned would have gone to a normal school and signed an agreement to work in the schools of the State, if they had not there been allowed to study those branches which it is the province of the academy to teach?

I believe, sir, that the normal schools should do the work assigned to them by inference, by reason and by law, and should not fit boys for college.

I believe that, by teaching the academic studies, they draw many persons into their classes who have no business there. I shall not impugn the motive of all who sign the agreement to teach and fail to stand by their contract. I believe that the most of these think that sometime or other they will teach. But is there no question of morals

in this matter? Is this standing temptation to young people to sign an agreement to teach in the public schools of the State, whether they deem themselves called to the work or not, in order that they may have the benefit of a few academic courses just right morally?

Again, our young people who go to the normal school for both matter and method, go at the age when their plans for life are immature.

They are not all fitted by nature to be teachers; they are, as yet, sadly in need of sound advice in choosing their life work. They should be in the hands of those who will watch the development of their best gifts, and so mold them that they can best work out God's design in their creation. Can those men, however wise, guide such young people aright, when their only business is to fit teachers for the schools of the State? Are they doing the right thing for the State, or for the young man, in trying to make him a teacher when God designed him for lawyer, a doctor or a blacksmith?

Then too, our present system works positive injustice to the academies and academic departments of union schools. All over the State are old academies struggling for existence. Few indeed are those sufficiently endowed to be independent; that they are doing noble work, a class of work that no other schools can do, none will deny. Their higher classes are small, often but two or three are in a class preparing for college. If one or two of this number are induced by free tuition and free books to leave for a normal school, the result to the academy is indeed disastrous in more ways than one; it disheartens the teacher, unjustly hurts the credit of the school, and seriously effects its finances.

I believe that normal schools have two classes of work to do. One, to fit teachers for our common district schools; and the other, to instruct advanced students in the science of education and the art of teaching less primary branches. It is manifestly impossible for the present number of normal schools to do the first class of work, indeed several in each county would be necessary. Hence, let us admit that that work must be done in the future, where it has always been done, by the academies and union schools of the State. But let us ask the State to pay for such work somewhat commensurate with its worth.

As it is almost impossible to find a normal graduate teaching in a common district school, let us admit that the wording of the statute is a misnomer, and ask that the proper words be substituted therein. I believe, sir, that the only proper persons to be admitted to a normal school are those who have mastered the subject-matter of the branches

they intend to teach, that their instruction there should be purely professional. And I believe it will be far better for the State at large, for the academies, and for the normal schools themselves when this can be brought about. I can readily understand that a pupil who has earned a Regents' academic or a college diploma, can spend a year or more in a normal school with great benefit to himself and to his future pupils, but I believe the present system of making a free academy of nearly every normal school is an unjust discrimination against every other interest of the State.

REMARKS OF PRINCIPAL W. E. BUNTEN, OF ULSTER ACADEMY.

MR. CHANCELLOR, LADIES AND GENTLEMEN OF THE CONVOCATION.—The paper to which we have just listened is an able one, and states the case from the normal school side with fairness and force, and yet I am obliged to dissent almost *in toto* from the conclusions arrived at. I believe emphatically that academic instruction ought not to be given in our normal schools. The normal school has its place—an important one—in our system of public instruction, but so does the academy. This is not a question of what is best in Prussia or Germany, nor of what has been done during the past century, neither is it really a question of principle, it is simply what is best for the schools of our State, and what will best promote the cause of education in the future, and I believe it would be far better if the normal school were not allowed to encroach upon the province of the academy. I am ready to grant that the normal school, with properly trained instructors and with the means and appliances so generously—it might be said lavishly—furnished them by the State, can do the work of training teachers, teaching them the art of teaching better than the academy can possibly do, whose teachers as a rule, if not over-worked, have certainly enough to do in the legitimate work of the academy. It is, I think, quite evident that the academy can do the proper work of the academy better than the normal schools can; or, if this is not true and the normal schools have better facilities for imparting academic instruction than the academies have, then I say this is a misappropriation of the public funds, and the normal schools are not fulfilling the purpose for which they were established, but are doing an injury to the academies. We were told yesterday, and have been again to-day, how small a portion of the teachers of our State receive normal instruction, and we are also told that many who enter the normal school are deficient in general education and need academic instruction. This is no doubt true, and it is also true that students in the normal school can not afford to spend two years, or more, in simply studying methods. But the

remedy is obvious, it is simple. Raise the standard of admission to the normal school and shorten the course. I do not believe that any one with sufficient ability to make a good teacher can afford to spend two years in simply learning how to teach. Life is too short, and there are too many other things the teacher needs to learn to allow this. Now, let the normal schools be restricted to their proper work of training teachers, and let them require the young aspirants for pedagogical honors to come to them with minds disciplined by hard study in the institutions designed especially to give that discipline — the academies and high schools. Then let them have a course of training for six months, with a more extended course of one year for those who desire it, and I predict that the number of students who would avail themselves of the advantages afforded by the normal school would be quadrupled and when they leave the normal school and enter upon their chosen vocation they would be better equipped for their work — would make better teachers and the influence of the normal schools upon our public schools would be increased in a corresponding ratio, and so too would their value in our educational system. I would not disparage the normal school; it does have an important place to fill but it does not seem to be filling that place to the best advantage at present. It is a fact, too, that there may be too much method. I have known normal school graduates who had become so wedded to their own peculiar methods acquired by two or three years training that there was no room for originality either for themselves or for their scholars. In such cases methods become a positive detriment. There is, no doubt, an art of teaching that can itself be taught and acquired, but six months gives ample time for this or, at least, I think it is as much time as any one can afford to devote to this purpose. Tact and experience will give any further proficiency in methods that may be needed, and surely no one can have too much time for acquiring a real solid education — general culture. And, after all, a teacher's success or failure will depend mainly upon two things, the amount of actual knowledge and mental discipline he has acquired and his tact in imparting his knowledge and in inciting his scholars to mental effort.

REMARKS OF PRINCIPAL A. C. HILL, OF COOK ACADEMY.

MR. CHANCELLOR.—The broad question under consideration is whether or not the State should provide secondary education? This question is fundamental and an answer of some sort is of great moment to the cause of education in the State. Anything is better than uncertainty. My answer is the direct opposite of that given by the reader of the

paper. The State should not undertake to furnish secondary education for its citizens. My reasons for this view are briefly as follows: Education is not primarily a function of the State at all. Parents are rightfully as much charged with the education of their children as with their material support. The right to educate the people at public cost is based upon a necessity, and necessity knows no higher law. The people must be educated to a certain degree to insure the safety of the State, but beyond this, education supported by general taxation has no right to go. Somewhere the line should be drawn between public education and education by voluntary agencies. I contend that this line should be drawn this side of what is called secondary education. Reading principally, together with writing, a little arithmetic, history and the principles of republican government include about all the State should teach. All education above this should be left to be paid for by those who wish it for themselves or others. It is an injustice to taxpayers to compel them to maintain academic instruction in normal schools. Again, it is impolitic for the State to undertake the work of secondary education; for private enterprises would do it better. The magnificent gifts to institutions of learning during the past few years ought to convince any reasonable man that secondary and higher education can well be left to private enterprise and benevolence. Lastly, it is impossible for the State to provide academic instruction for all its citizens, and if it is to provide such instruction for one community it should for all. This would involve a tremendous expense, which the taxpayers would not endure. Meanwhile, elementary education, which is essential to the existence of the nation, is being neglected. There are not school-houses enough to receive the children in the lower grades. The elementary education is not made compulsory while the State is spending its money and its energy in a useless effort to provide higher grades of instruction. I hope the day will come when a more honest and a more politic view of the province of the State in education will prevail.

REMARKS OF PRINCIPAL C. H. VERRILL, OF THE DELAWARE LITERARY INSTITUTE.

MR. CHANCELLOR, LADIES AND GENTLEMEN OF THE CONVOCATION.—As well might one of our missionaries to Turkey speak against free government in the United States, as for any one to rise here and speak in opposition to the German school system. I wish simply to speak of the work done in normal schools and academies, and in the main, Mr. Chancellor, I must say that the paper of Principal Palmer, to which we have just listened, comes down to the real subject under

consideration. The only point I would like to make in this connection is the distinction between academic instruction in normal schools and in academical departments. There is no doubt that the paper is in favor of academic instruction in normal schools. There must be academical instruction in normal schools. The law is such, and it is precisely the same as in the case of other professional schools, such as the law and divinity schools. The law requires a knowledge of history and all ordinary branches of learning, and, if I am rightly informed the divinity school also teaches Hebrew and sacred rhetoric, as well as professional training. So the normal school should teach something of the kind, and I can not see why one should object to the academic instruction in normal schools. I think this supplementary work is all right. Would that every student were required to present a Regents' preliminary certificate in order to get into a normal school. I wish to hear further upon this point as distinguishing between academical instruction in the normal schools and academical departments in the normal schools. In Massachusetts, the normal schools are established with the design of instructing both in the subject-matter and in the practice of teaching, and there is no distinct line drawn. It is so with the schools of Pennsylvania, and yet academic instruction is given in them. It can not be otherwise. The point made with reference to the normal schools that they are failing to meet the requirements of the State, because such a small number of graduates are now teaching in the State, is unjust. There are many teachers now teaching in this State, who, though they were once students of the normal school, they left before graduation, and hence can not be counted as graduates. It is unjust to say that the normal graduates cost the State so much money, when, in fact, the State appropriations are for the instruction of all students who are in attendance at the State normal schools, both graduates and undergraduates. This is unjust. Let us be fair. Let us be honorable. We believe in schools, in good schools, and in good instruction, and upon this point we ought to agree.

REMARKS OF PRINCIPAL F. J. CHENEY, OF KINGSTON FREE ACADEMY.

MR. CHANCELLOR.—I do not know that I shall be able to add anything to a discussion which thus far has been so practical and thorough. But there are two or three facts for us to take into consideration. Normal schools, academies and union free schools are here in this State, and they are here to stay. These schools have their advocates, their rights and interests, which are to be respected; and I am very glad to notice that we have come to such a condition of affairs that we are able to discuss this question in a harmonious way. The more it is

discussed the more do we see normal school men and academy men coming together, and we are becoming convinced that there is common ground upon which we can stand. As the discussion of the relation of these schools has progressed, yesterday and to-day, some facts have been made clear: First, there are about 31,000 teachers in this State; second, six per cent of these only come from the normal schools; third, a larger number comes from the training classes, and, fourth, probably a still larger number comes from the academies and high schools outside of the training classes. The complaint is that the normal schools, instead of confining themselves to the work for which they were established and are paid by the State, are doing academic work, and consequently are not supplying our public schools with teachers in such numbers as they ought. The question before us is, "How can the whole matter be adjusted so that the work of the normal schools and academies will not conflict?" The proper solution of this question is now engaging the attention of our State Superintendent, if I understand the meaning of his public utterances. And certainly there can be no mistaking the words of our friend, Dr. Sheldon, a representative normal school man, who has been so long in the harness and pleaded for peace between these opposing elements, and who has shown us the common ground upon which peace and harmony may be established.

The normal schools have rights, and, as an academy man, I am not here to find fault because they seek to maintain them. Those already established are, by contract, required to keep up academical departments; therefore they can not, if they so desired, throw them out. But these academical departments are preparing young men and women for college, which I do not believe either the letter or the spirit of their contracts require them to do. Just here they are encroaching upon the work of the academies and are causing unnecessary friction between these two classes of schools. If the normal schools would consent to give up this work and confine themselves to the teaching of only so much of the subject-matter of academic studies as may be necessary to prepare thorough teachers for our public schools, they would do much toward removing the difficulty.

REMARKS OF PRINCIPAL E. H. COOK, OF THE STATE NORMAL SCHOOL AT POTSDAM.

FELLOW TEACHERS.—I once saw a person very angry because a man told him, "You are no better than you ought to be;" in explanation, he said that he did not care how good he was he would still make the statement. And, in my judgment, the academies of the State are no

better than they ought to be. But, for all that, they are excellent, and I hope they will continue to grow better. Now, as one of the normal school men, I want to say you can't get me angry on this subject. Our normal school is under a peculiar condition, because the village and the town and county of St. Lawrence gave \$75,000 to erect these buildings, and entered into a contract with the State. Under this contract we are obliged to sustain academical departments. We would like to do away with academic work. We would like to do professional work, but we must not lose sight of secondary work, because there are certain limitations to professional work, as there are to academic work. We believe that the normal school should be professional as far as the school of medicine is. But I am unable to understand how a student can go to a medical school and study the theory and practice of medicine without outlining, in a supplementary way, the subjects that directly bear upon the profession of medicine. I know I should not know how to undertake to teach a class without outlining in a general way the course to be pursued. Perhaps I am unfit for such a position, but I can not understand how you can separate the subject-matter from the method. They must certainly go together. The argument of Principal Hill does not seem to me to touch the question, the question of whether the State has a right to do certain things, and if it furnishes them, it must furnish them to one and all. That is poor logic, and I do not think it would hold good. I do not think that because the State furnishes a governorship to one man, that it follows that it must furnish a governorship to every individual; and we find this to be the case when we come to study the relation of the State to our public school system. While the State ought to try to give an elementary education to all of its citizens, it is not therefore bound to send all the boys and girls to the academy and the high school. The academies and high schools are built for those who aim for such advantages, and will profit by them, and it is right that they should give all possible encouragement to such worthy effort. There ought to be no ground for difference here between the normal schools and the academies. I have always maintained that we ought to stand on common ground. I was the first of the normal school principals to take the olive branch of peace and carry it to Syracuse to the meeting of the academic principals, and then Dr. Sheldon came with me at the next meeting. I am heartily in favor of increasing the facilities of the academies, and of keeping the pupils there as long as possible. I urge all of our students to stay at the academy as long as possible, because the better prepared they are in the subject-matter, the easier they do the work with us. I was glad

to hear Principal Verrill make the remark that he did. I believe his point with reference to the graduates of normal schools was well taken. We feel that to judge us by our graduates alone when there are so few of our students teaching in this State, is to do the normal schools a great injustice. There is one other point I would like to call attention to, and that is that the pupils from the normal schools are not interested in fulfilling their obligations. That has also been represented in this Convocation. Our graduates in the main fulfill their obligations. Of the graduates that have finished their work since I took charge four years ago, all but two are fulfilling their obligations to the State and all but four are fulfilling their obligations in the State of New York. We have also a large number of undergraduates who are teaching in the State. In 1887 we sent out 148 undergraduates to the district schools for whom we got no credit. They are teaching in the schools of the State; they are doing precisely the work for which the State built the normal schools, and yet for them and for their work we get no credit whatever. This is not right. There are not over thirty or forty of our graduates teaching in the vicinity. Perhaps they are teaching in other localities. But I will say that about thirty of our graduates are at the head of union schools, and a large majority are acting as assistants, so that our record is not as bad as would at first sight appear.

REMARKS OF C. E. HAWKINS, INSPECTOR OF TEACHERS' CLASSES.

MR. CHANCELLOR AND MEMBERS OF THE CONVOCATION.—There is no more important question than this: "Should academic instruction be given in our normal schools?" Can these schools give in subject-matter what takes our academies three years to complete, and in addition also carry forward a thorough course in professional work, which alone should take three years? In other words, can the normal schools give in a three years course, a three years course in subject-matter and also a three years course in professional study? It is evident that one course or the other will be neglected. It is generally conceded to be the latter, thus making these schools more academic than professional. This deficiency is met by the able essay which Dr. Palmer has just read by the assertion that "the matter and the method must go together." Now is this true? That is what I want to point out. Is it necessary that the subject-matter should be presented at the same time with the method, or the manner in which to teach that subject? How is it in the case of the orator? A perfect orator holds the attention of his audience, but no one thinks that it is his manner that does it. His method is lost sight of entirely in the

subject-matter. That is the true art, and this is what makes the perfect orator. So I think it should be with the teacher. It should not be his fine methods that are noticed in the class-room; in the conduct of the recitation the method should be lost sight of in the subject-matter. It seems to me that a skillful teacher can not carry these two things together. They must be separated. The attention can not be given to the subject-matter and to the method of presenting the subject-matter at the same time, one or the other must suffer. The matter and the method are two separate and distinct lines of thought. To admit that the method can not be taught as a system of thought by itself, is to admit that we can not have a purely professional school in the art and science of teaching. Why establish normal schools or professional schools if the fundamental idea for their establishment is a mistaken idea?

The correct order, it seems to me, is to lay a good foundation by taking a thorough course of instruction in our academies, then let our normal schools put on the superstructure by a course of normal training in the theory and practice of teaching.

REMARKS OF PRINCIPAL J. E. KING, OF THE FORT EDWARD COLLEGIATE INSTITUTE.

MR. CHANCELLOR.—The State of New York is unfortunate in regard to deciding this matter. It is a question whether it is worthy of the Empire State to have gone into partnership with these villages that are trying to boom themselves by giving buildings for the founding of normal schools. I question whether it would not be cheaper to buy off these villages at once, and so annul these contracts. Now there seems to be a great question of difference between the academies and normal schools in this State. There seems to be at this point in our educational system a very serious defect. What is the remedy? It is plain and ought to be immediately applied. Let the gentlemen in the normal schools meet the necessary requirements justly demanded of them as training schools. Let them recognize the demands of the time. Let them answer to the expectations of the State in the founding of the normal schools, and in response to those expectations let them begin to furnish a larger per cent of teachers to the schools of the State. To do this let them advance their standards for admission. Let them give more professional training. Let their *main work* be given to the training of teachers. If necessary to meet local claims, let them prepare a modest academic department. Have in that department, perhaps, one teacher; but let the pupils pay for the instruction in this department, as they do elsewhere. Let them also

pay for their text-books. So that in all essentials the normal schools will be upon the same grounds as the academies, instead of being big State endowed academies with a small normal school annex. In that case it will no longer be possible for those communities not having normal schools, wanting a boom, to manufacture public opinion that will demand their establishment, as in the case with so many of the towns and villages of the State. Require the normal schools to attend to their own affairs, and furnish teachers for the State, instead of unfairly competing with and nullifying the academies, and all will be content.

REMARKS OF PRINCIPAL ELISHA CURTISS, OF SODUS ACADEMY.

MR. CHANCELLOR, LADIES AND GENTLEMEN OF THE CONVOCATION.—Yesterday I listened to a distinguished trainer of teachers, who said knowledge alone can not make the teacher. He dwelt long upon this thought and said that the subject-matter of studies usually pursued in common schools was taught satisfactorily by the academies. He made an exception of zoölogy, and perhaps physics, but graduates from academies in all other branches were well instructed. The *graduates* came to the Oswego normal well prepared to receive normal instruction. He said he desired to have them well grounded in subject-matter, as the province of normal schools was "to teach how to teach."

To-day normal educators seem to take a directly opposite view of the subject. They confuse and do not seem to know exactly what they do want. They place themselves somewhat in the position of a celebrated orator of whom the story goes,

"He wriggled in, and wriggled out
And left his hearers all in doubt."

They dare not say that they can teach subject-matter better than academic teachers, but they try to convey the impression, and they are unwilling to confine themselves to normal work. The plea that their charter compels them to advertise for students to whom they may teach subjects that are well taught in academies, is sheer sophistry. This talk of a charter compelling them to have such an academic department as is now maintained in some of the normal schools is a delusion and a snare.

The solution of this question rests with the educational officials of this State.

A distinguished State officer said less than twenty-five years ago, that he believed he did not have the right to say who should teach in

the schools of this State; but he did have the right to say who should not teach in the common schools of this State.

This same official has the power to settle this vexed question of academic instruction in normal schools. He may not have the courage of his convictions.

He may not have clear conceptions about this one subject, if he has, and timidity does not induce silence he will bring the war to a close.

The teachers' classes are doing excellent work of a professional character, and thousands of teachers yearly receive instruction in them, and go immediately to teaching in the rural districts. Fixed qualifications are required to entitle a candidate to admission to the teachers' class.

Thorough preparation in all the subjects pursued in a common school should be required for admission to a normal school.

Now, can the academies teach these subjects well? Are they meeting all just requirements in this direction?

Let Dr. Sheldon, for whose honesty and judgment all have the greatest respect, state the subject that academies fail to teach properly.

Let the academies meet the requirements beyond question or cavil; then let those thus qualified be admitted to the normal schools, there to be taught normal methods and the philosophy of education.

Seventy-five per cent of the teachers now teaching in rural districts have professional training in academies and in teachers' institutes.

I was much pleased with the remarks made by Dr. Cook. He displayed upon the question, as he does upon all educational questions, much ability.

REMARKS OF PROFESSOR J. M. MILNE, OF THE CORTLAND NORMAL SCHOOL.

MR. CHANCELLOR, LADIES AND GENTLEMEN OF THE CONVOCATION.—Granted that normal schools have not received much attention in the State. Granted that they have had no very great effect upon our educational system. In Germany, however, they have done very much to educate thought, and of late years they have at least furnished subjects for much discussion in the educational councils of this land. They have furnished a perfect Fourth of July text, as it were. Gentlemen, this subject is continually discussed within our normal schools. I agree in part with the gentleman who spoke before me, and who quoted from the law. It is important to the normal schools to take an impartial view of the case. We are under certain conditions. We are under certain restrictions. Our entire condition should be taken into consideration, and by that we should be judged. It is easy to take a text, and to speak from that text alone. The true method is to read all the law, so that the text

can be read in the light of the context. The limitations of the normal schools according to that same law entirely preclude such an interpretation as has been given, for the law also provided that there should be a course of study in preparatory subjects. Now, I believe it is a part of wisdom to go to foreign countries and to study their systems, and I believe our ideas can be improved by so doing. We should never fail to take advantage of all advanced ideas on education wherever they may be found. The German system is a great system of education. It was founded by great men, men of powerful minds, men who were able and willing to think clear through the problems which effected the education of the age, and I believe it is a fair problem, and not only the education of their own age, but for the education of the ages yet to come. And I believe from these men we can learn a great lesson. As we are trying to perfect the system of education in this country, we should not confine our efforts to our own times. We should not bound our vision by such narrow limits. As it is at present in our normal schools, you will find a boy who will only have to be in the school one year. There are many who pass to the last year, and then go out and make excellent teachers. We welcome all this. We desire it. But then, there are a great many who are unable to do this, and for this last class we are compelled to pay attention to the subject-matter. Now, is it fair, under these circumstances, to hate the normal schools; to charge them with bad faith to the State? Is it fair to be in opposition to those who are working so hard to solve this problem? Is it fair to destroy the influence of these schools? I visited, a short time ago, the normal schools at Washington and Boston. These are the schools after which we form our ideas. They are the ideal normal schools that have been brought before the teachers of this State so many times. In these schools no subject-matter is taught. But what did I see in connection with these schools? I saw the subject-matter taught in other schools, intimately connected with the normal schools, under the same corps of directors, under the same superintendent, under the same general management. And I must confess I saw but little difference between that system, with its two schools, and the system in our own State. Let the gentlemen then, be not too fierce in their opposition. Let them not be too hasty in their conclusions. It is the easiest thing in the world to pull down a building, but it is a hard thing to build it up again in symmetry and in beauty.

REMARKS OF PRINCIPAL D. C. FARR, OF GLENS FALLS ACADEMY.

Mr. CHANCELLOR.—I believe that the academic principles of this State wish well to the normal schools as a part of its great educational

system, they want them even better than they now are; but how can this be done, except by their doing their legitimate professional work?

As an academic principal, I believe that the academies are abundantly able to fit students, as far as subject-matter is concerned, for these schools. Let the standard of admission be made as high as you please, and we will meet it. There are academies enough in this State to prepare a sufficient number of students to fill each of our normal schools, and why should they not be allowed to do it, instead of lowering the standard of these schools by allowing them as now, to do preparatory work?

It may be answered, these schools are under contract to do this work for the communities in which they are located, then let the State see to it, that these contract obligations are canceled as soon as possible, and that no more such contracts be made unless they are prepared to extend the same privileges to every academy in the State.

All our other professional schools have fixed standards of admission which they require to be met before the student can be admitted; why make an exception in the case of our normal schools?

Our colleges have given up their preparatory departments, much to their advantage, as well as rank, and would not the same results follow in the case of our normal schools?

REMARKS OF PRINCIPAL C. T. R. SMITH, OF LANSINGBURGH ACADEMY.

MEMBERS OF THE CONVOCATION.—The thoughts that I wished to express when I sent up my card have been well put by the gentlemen who have just spoken. But I want to add to this discussion my personal experience in this matter. I think I am not mistaken in saying that a great debt is owed by all the teachers of this State to the normal schools. I wish to acknowledge my own debt. On coming out from college I took charge of a union school, and was called upon to grade that school. I soon felt my deficiency. But I went along and did the best I could until I came to the first vacation. I then went to a normal school which was in the vicinity, and had an opportunity of attending their exercises for about two weeks, and in that time I received hints and suggestions which not only gave me great assistance in grading my own school at that time, but have been of very material importance to me in all my after life. I believe that this is no uncommon case among the teachers of the State. But, Mr. Chancellor, I think the point which the last speaker made was well taken. In the training of teachers, this elementary work in the subject-matter can be done in the academies, and the academies can do it as thoroughly as the normal schools may require. Let the normal

schools demand of their students such kind and degree of preparation as they see fit and the academies will prepare pupils for the normal schools as they now prepare students for college. Many of the academies are doing this work in subject-matter better than some of the normal schools to-day. I do not think that applies to all normal schools by any means. My own experience in this line was probably peculiar. I had occasion at one time to engage an assistant unexpectedly, and as it was in the middle of the school year when teachers were scarce, I went to a normal school and they recommended to me a gentleman who they said was one of their most promising pupils. I appointed him my assistant in the school. I gave him a class in book-keeping, but soon complaints began to come in. He was not familiar with the subject-matter, and was unable to keep up with the class. Investigation showed that he had given only six weeks to the study of bookkeeping. I then substituted for the bookkeeping a class in astronomy. Soon complaints came from that class. He was unable to teach the class in astronomy, and further investigation showed that he had studied astronomy three weeks in the normal school. As it was near the end of the term, I did not investigate further. He worried along until the next school year, when I procured a college graduate, without experience. He was successful and his successors have been procured from college. Now it seems to me that the academies of our State can do far better than that as to instruction in subject-matter. Why not leave that work to the academies, and all agree in thinking that the normal schools should be strictly professional schools?

REMARKS OF EX-PRINCIPAL N. T. CLARKE, OF CANANDAIGUA.

Mr. CHANCELLOR.—I felt yesterday, after listening to the excellent paper by Dr. Butler of New York, on "Manual Training as an Element in Public Education," and the equally valuable and timely one on "The Training of Teachers for the Ungraded Rural Schools," by Dr. Sheldon, of Oswego, the patriarch of our normal schools, that the Convocation ought to be congratulated on the evidence of the increased life and energy with which it entered upon its second quarter-century's work, and also for the fact that this organization, largely the child of the Regents of the University, had made a record of such grand and substantial educational progress in the quarter-century just closed.

We seem to-day to be brought near to the realization of at least two most important steps in educational work. They are not new movements, and have often been discussed before this Convocation,

but the indications are that the time has come for making them organic, and legally constituted parts of our school system.

Of these papers referred to, one relates to the proper teaching and training of the pupil. The other to the training and preparation of the teacher.

The paper of Dr. Sheldon traverses a field which has long been of great anxiety and thought to all good teachers and to school boards. Dr. Sheldon speaks from the normal school point of view. He has for many years been in charge of one of the best normal schools of the State, and he has seen the result of the experiment which the State has been trying since 1844, to supply normal teachers to the schools of the State. He, like others engaged in teaching, sees that the demand for teachers needed in the State can never be met by the present method even if the State should establish such normal schools in every county of the State.

The original idea of the normal school was to *teach persons prepared in subject-matter, how to teach*. The work was to be professional. But it soon came to appear that such schools were not desired by the people, and the normal schools that were created by the Legislature bore scarcely no semblance to the original form.

Owing to local influences, where these schools have been placed, they have been little else than *free academies*, doing much more academic, and even primary work than normal, and so brought into competition with all academies and union schools in their proper work. Now, Dr. Sheldon proposes to come back to the original idea of training teachers, and proposes to reduce the normal term to six or twelve months, and to have the State provide for the preparation of teachers for our rural schools in the several counties or towns where they reside.

The time seems to have arrived for fixing the line sharply between academic and normal work. Last year we discussed the proper limitations of college and secondary instruction, and I believe met good results, and I have faith to believe that we are about to draw the line between academic and normal work.

This subject has occupied my mind for many years, and my views harmonize with those expressed in the paper, and while I would not attempt to outline a plan to meet the end proposed, I think I can see how a movement, like the one suggested by Dr. Sheldon, aided or even created as it could be by our efficient Superintendent of Public Instruction, through the Legislature, might in a few years meet this just and constantly increasing want.

VIII

Libraries as Related to the Educational Work of the State.

Read before the Convocation of the University of the State of New York,
in the Senate Chamber, Albany, July 1, 1888.'

BY MELVIL DEWEY,

Director of the Columbia College School of Library Economy.

There runs a tradition of our craft "The librarian who reads is lost." Who writes is indeed without hope. How grave his case who tries to make a speech! The modern librarian is too crowded with daily work to bring you carefully rounded periods or polished sentences. He is content if able to make his meaning clear and lodge the thought of his mind in yours.

You listen from year to year to special pleaders. Each man, as a rule, tries to magnify his office, and demonstrate that the topic in which he feels special interest is clearly first in importance. He pleads for vocal music, elementary science, hygiene, gymnastics, ethics, manual training, civil government, drawing. We are convinced of the value of every one, but alas, the list of necessary studies is like art, long, and school life for most of us pathetically short. We are forced mentally to brace against the carefully prepared points of the advocate. For three reasons I ask you to-day to follow me without this customary bracing against extreme views.

1. I do not magnify my office because it is mine, but rather have chosen it as a life-work because unable to escape the conviction of its superlative importance to education.

2. I come to you without carefully prepared arguments, and ask you simply to answer to your own minds my plain but vital questions.

3. Most important, the action to which I seek to lead you, instead of taking more time, means relief to your overcrowded curriculums.

What I propose, you will see is no entangling alliance, but rather is annexing a continent. Were there time, I should speak of the admirable work that has been going on in both east and west for the last five years between the schools and libraries. This has met with hearty recognition, has been often described in print, and is making its way rapidly through the country. But this is only the introduc-

tion to that deeper relation and recognition which is in the immediate future.

And let me remind you before we begin that the library for which I speak is one which few of us have seen, except in promise. It is a library at present in its infancy. Remember your own history. "Schools" were old when Paul sat at the feet of Gamaliel and the quick-witted Greeks hung on the words of their teachers in the Academy, Lyceum, and the Porch. But schools like those of which this Convocation is the crown are *young*. When in this discussion we speak of schools, we mean that ideal for which we strive, which ought and is to be. Observe the golden rule, and when we speak of libraries, picture that ideal which I will briefly sketch. Go back neither to the storied bricks and slabs of Nineveh and Babylon, nor to the myriad MSS. of mighty Alexandria, nor, coming to our own time, to those institutions which in our library evolution correspond to Squeers and Dotheboys Hall.

We have many libraries still which have naught in common with our ideal, except books and the name; many that seem still carefully administered for the least good to the smallest possible number. Our evolution comes after yours. We are not so far advanced. Barely a generation ago the harmless incompetent, fit for nothing else, was set to teach school. But in their dignity and strength most schools have now crowded out the incompetents. The libraries are following, and already the idea is giving way that men and women, who fail in everything else, and can get neither church nor school, patients nor clients, are just the ones for librarians. Glance with me a moment at a sample of the old library and the new.

The old was located in an out-of-the-way street, specially inconvenient to the majority who might want it; the building was unattractive, dark, damp, cold, unventilated and ingeniously inconvenient; many of the books were on shelves so high as to require a ladder, were covered with dust, in shabby bindings, protected often with shabbier paper covers, soiled, torn and generally discouraged in appearance; unused public documents, old school-books, etc., nearest the door, the more attractive works in the attic or cellar; the shelves unlabeled; the books without numbers on the back, and possibly with none inside, and put on the shelves haphazard as they had come in, or in a classification so coarse that a reader seeking matter on a minute topic might require a week to look over the disorganized mass of literature in which he might or might not find something that he wished; its catalogues and indexes were chiefly conspicuous by their absence, or were so meager, unreliable and so destitute of clear grouping that

the only way to find what was wanted was to read the whole catalogue. The library was open an hour or two now and then, and closed evenings, holidays and vacations, for annual cleaning or for almost any excuse—on busy days, because no one had time to come; on holidays, because the librarians also wanted those days for rest. Finally, and most important, the old type of librarian was a crabbed and unsympathetic fossil who did what he was forced to do with an air that said plainly he wished you had not come, and a reader among his books was as unwelcome as the proverbial poor relation on a long visit. It is a sorry picture, but by no means wholly fanciful. In many places those who knew would pronounce it a study from life.

Contrast all this with the library as it should be, and in many cases will be. Placed centrally, where it is most accessible to its readers; the building and rooms attractive, bright and thoroughly ventilated, lighted and warmed, and finished and fitted to meet, as fully as possible, all reasonable demands of its readers; the books all within reach, clean and in repair; those oftenest needed nearest the delivery desk, labeled and numbered; arranged on the shelves so that each reader may see together the resources of the library on the topic which he wishes to examine, kept constantly ready for inspection; with simple and complete indexes and catalogues to tell almost instantly if any book or pamphlet wished is in the building; open day and evening throughout the year, and in charge of librarians as pleased to see a reader come to ask for books or assistance as a merchant to welcome a new customer; anxious to give, as far as possible, to each applicant at each visit that book which will *then*, and to *him*, be most helpful.

These are the facts. The old library was passive, asleep, a reservoir or cistern, *getting in* but not giving out, an arsenal in time of peace; the librarian a sentinel before the doors, a jailer to guard against the escape of the unfortunates under his care. The new library is active, an aggressive, educating force in the community, a living fountain of good influences, an army in the field with all guns limbered; and the librarian occupies a field of active usefulness second to none.

We will speak then of the relation of schools and libraries as they ought to be, and not of the failures of the past.

It takes the world a great while to learn what seems afterward very simple lessons. A happy thought sometimes revolutionizes the common practices of centuries. It comes out as clear as lightning in the darkness and the world recognizes and accepts it, as witness the telegraph and telephone and other modern miracles. Sometimes the new

idea crystalizes so slowly that it seems like a geological formation. But whether with swiftness of light or slowness of granite the world moves steadily forward.

I suppose the man who first proposed attaching a wagon to the horse and making him draw that as well as his load, was voted as great a visionary as the modern flying machinist. But when on a smooth road he proved that the same horse could draw ten times as much as he had carried, why the wise old world said "the man is right. Go to, now, let us build ourselves wagons." Then the obstructionist (for the dear, dreadful, omnipresent old fossil was surely there) said, "In spite of his proof, the wagons are useless for they can not run on our bridle paths." And there was truth, as there often is, in the obstructor's position. But the world that built the wagons has built the roads. And when we remember that the builders have gone on to cross the continent with roads of iron and were not dismayed at the great span of the Hudson at our feet, or at the huge Hoosac bulk which we can almost see beyond the other shore, you will hardly think the task too great to build the road of which I am to give you a bird's-eye view to-day.

If you will follow me you will recognize that without the libraries our schools can do but a fraction of their work. They are horses without wagons, engines without cars, canals without boats, except such skiffs and scows and rafts as chance may throw upon their waters. We must have proper carriages as well as motive power, and then must make suitable provision for broad and straight and level roads.

We are spending our time and money with a freedom of which all the world is proud, to give our youth in our public schools not much information or culture, but only the simplest tools which, if rightly used, will enable them to educate themselves by reading.

Of old it was only the learned few who could read; most of the world were limited to conversation. Now, we are told this is an art more rare than music, and only the educated few are able to converse; but, except illiterates, everybody reads. Less and less from living voice, from pulpit or rostrum, and more and more from printed page, are people getting their ideas and ideals, their motives and inspiration. The mass of knowledge credited to nature and observation comes most of it, not directly, but through print. The eye, not the ear, is the great gate to the soul. The town-crier no longer rings his bell and shouts his message through the streets. Even if told orally, most readers wish to see "how it looks in print," as an average reader of French wishes to see rather than hear the words. All that is

worth knowing soon gets into type. What a boon if such only were printed!

As we study the question, it becomes clear that the difficulty and expense of reaching the people by the voice, and the cheapness and permanence of print make it necessary, if we are to educate and elevate the masses and make their lives better worth living, that we should, in some way, put in their hands the *best* reading. I say best, for reading is not necessarily good or elevating, though it certainly averages much higher than conversation because much greater care is taken in its preparation. Labor and cost bring into activity the law of survival of the fittest. But if good books average higher than good conversation, bad books are more powerful for evil; for when ideas good or bad get into book form, they are apt to become vastly more potent. We have thus a double reason for our missionary work; to give good reading for its own sake and also as the best means to drive out and keep out bad. To teach the masses to read and then turn them out in early youth with this power and no guiding influence, is only to invite the catastrophe. Human fashion, they are quite as likely to get bad as good. The down hill road is ever easiest to travel. The world agrees that it is unwise to give sharp tools or powerful weapons to the masses without some assurance of how they are to be used. Even George Washington got into mischief with his first hatchet.

The children of another generation will see nothing especially wonderful about the telephone or electric light. So we, born to constant sight and use of books, seldom stop to think what a miracle they are. As distinguished from the brute the savage has the divine gift of speech. And when we think that the vibrations of the air started by the vocal chords convey to another the workings of the human soul, we no longer wonder that speech has been looked on as the direct gift of the Almighty, a power too wonderful to have been invented by man. And when, a step higher, the image of his Maker discovered the art of writing, and learned to make spoken words permanent on wood or stone or clay, we do not wonder that the savage worshipped the chip that could talk or the bit of paper that unaided made a complete communication. Has there been anything in the world's history so wonderful as a modern book?

And remember that of late years the printing press has called to its aid graphic methods, color, form, the curves and coördinates of geometry and the many photographic processes, so that in many cases the book makes the author's meaning clearer and more easily understood than would be possible for a score of authors with the

living voice. In proof of this consult some recent statistical atlas or the profusely illustrated volumes in science. Or take this very point of illiteracy :— here is a map on which is indicated by darkness of shading the amount of illiteracy in each section. Or to be more exact, here is a page with the list of all the States at the left, followed by columns representing each decade of this century, with the dates at the top of the page. Running across this page, opposite each State, is a curved line indicating by its height above the ruling, the percentage in that State that can not write; for each year the rise and fall of the lines show the fluctuations graphically. A similar line in red opposite the same State in the same way shows the percentage that can not read. Thus on this single page, at a glance, is told with geometrical accuracy the amount of illiteracy for the whole country; or for any given year, by reading down the proper column; or by reading across, the conditions of any given State during the whole century; or, by consulting the intersections of these columns as on a railroad time-table, the conditions of any place, at any time. No amount of oral statement could begin to give so clear an idea as a few minutes study of these two pages. Similar methods are being applied to almost every subject of human interest. Recent photographic processes have made exact pictures and all kinds of illustrations so cheap that a modern book, as compared with those of last century, is like a modern lecture on science, in which every point is illustrated by experiments performed before the listener or by pictures thrown on the screen by a lantern, when compared with a mere oral statement which, however skillful the word painting itself and however clearly defined in the mind of the speaker were all the ideas of objects referred to, simply *could* not reproduce them as clearly in the minds of the listener.

Emerson says :

“Consider what you have in the smallest chosen library. A company of the wisest and wittiest men that could be picked out of all civil countries, in a thousand years, have set in best order the results of their learning and wisdom. The men themselves were hid and inaccessible, solitary, impatient of interruption, fenced by etiquette; but the thought which they did not uncover to their bosom friend is here written out to us, the strangers of another age.”

And his friend Carlyle adds :

“Of the things which man can do or make here below, by far the most momentous, wonderful, and worthy, are the things we call books.”

Reading is a mighty engine, beside which steam and electricity sink into insignificance. Four words of five are written: “It will do

infinite —." It remains for us to add "good" or "ill." What can we do? Good advice and example, encouragement of the best, addresses, all these help, but no one questions that the main work is possible only through the organization and economy of free public libraries. Many have practically accepted this fact without clearly seeing the steps that have led to it. It is our high privilege to live when the public is beginning to see more than the desirability, the absolute necessity, of this modern, missionary, library work.

With the founding of New England it was recognized, though opposed to the traditions of great powers in church and State, that the church alone, however great its preëminence, could not do all that was necessary for the safety and uplifting of the people. So side by side they built meeting-house and school-house. The plan has had a long and thorough trial. None of us are likely to question the wisdom of bringing the school into this prominence, but thoughtful men are to-day, more than ever before, pointing out that a great something is wanting and that church and school together have not succeeded in doing all that was hoped or all that is necessary for the common safety and the common good. The school *starts* the education in childhood; we have come to a point where in some way we *must* carry it on. The simplest figure can not be bounded by less than three lines; the lightest table can not be firmly supported by less than a tripod. No more can the triangle of great educational work now well begun, be complete without the church as a basis, the school as one side, the library the other. The pulpit, the press, and wide-awake educators everywhere are accepting this doctrine. There is a general awakening all along the line. The nation is just providing in the congressional library a magnificent home for our greatest collection of books; the States are passing new and more liberal laws to encourage the founding and proper support of free libraries; individuals are giving means for establishing these great educational forces, as never before. Witness Walter Newberry's three millions to Chicago, Mrs. Fiske's million and a half to Cornell University, Enoch Pratt's million and a half to Baltimore, Judge Packer's half-million for the library of Lehigh, Andrew Carnegie's proffered quarter-million to Pittsburg, and proudly at the head, greatest of all library gifts, Governor Tilden's five to ten millions left to New York, not to mention the hundreds of smaller gifts which mark the last few years. New, large and beautiful buildings are being rapidly provided; new libraries are being started at the rate of one to three each week; old ones are taking on new life and zeal; Sunday school and church libraries are organizing to enlarge and make their work more effect-

ive, and a great field of usefulness, at present hardly realized, is opening in this special direction; schools are being brought into direct and active relations with local public libraries. To one studying this great problem, the air is full of the signs of the time. As with the free school, so again, New England leads in free libraries, but her example is being followed with constantly increasing rapidity.

Our fathers had to revise their ideas and introduce the free schools as an essential factor. The time has come when we must revise our conceptions of education, or refuse to recognize very significant facts.

Education is a matter of a lifetime. We provide in the schools for the first ten or fifteen years and are only come to the threshold of seeing our duty to the rest of life. We begin to see that the utmost that we can hope for the masses is schooling till they can take the author's meaning from the printed page. I do not mean merely to pronounce the words or pass the tests for illiteracy, but to *understand*. Observation has convinced me that the reason why so many people are not habitual readers is, in most cases, that they have never really learned to read; and, startling as this may seem, tests will show that many a man who would resent the charge of illiteracy is wholly unable to reproduce the author's thoughts by looking at the printed page. And even with this tremendous modifier of the real number of readers we lose ground. I am no pessimist. I have no sympathy with croakers. I am proud to the last degree of the great work that is being done. But we can not shut our eyes to the census. In 1870 fifteen per cent of illiterates seemed an ugly item, but it had grown to seventeen per cent in 1880, in spite of all our millions and all our boasts. Of the children of school age in this great State, how pitifully few get beyond the grammar school? And of those who become academic pupils, how many enter college? And to the saving remnant that graduates from college, how much of the knowledge of after life came from schools and how much from reading? We must face the facts. We must *struggle* to teach our masses to read in our schools. Then they must become breadwinners; and if we carry on their education we must do it by providing free libraries which shall serve as high schools and colleges for the people. Our schools, at best, will only furnish the tools (how rudimentary those tools for most people now); but in the ideal libraries, towards which we are looking to-day, will be found the materials which, with these tools, may be worked up into good citizenship and higher living. The schools give the chisel; the libraries the marble; there can be no statues without both. As this fact becomes more generally recognized, the time draws nearer when the traveler will no longer ask *have you a library*, but

where is the library, assuming its existence as much as he now assumes that there must be a church and school and post-office.

But if the library is to do the ideal work that we have in mind it must have some of the ideal qualities on which such work depends. This means a library differing materially from both the types most familiar in the past, which we may call storage and recreation libraries. The first is a storehouse, a cistern, an arsenal, mediæval in its spirit, a literary miser, always getting in, seldom giving out. It was for holding and preserving, and not for use, and is best illustrated by the miser who gets gold not to spend, but merely for the satisfaction of possession. The European libraries are largely of this character, as are most State and government collections.

The recreation type is a mental candy shop, and at the other extreme in every feature. It is wholly for use, but the use is wholly for amusement. It could be illustrated by a school that taught only games, or a hotel that in its dining-room served only sweetmeats. It has, to be sure, some excellent books, but supplied to meet the taste of its pleasure-seekers, as the confectioner gives those who wish it a bit of good bread to eat with their ice cream.

Surely every library ought to have an ambition to get and preserve books, and surely some place should be found in every general collection for fiction and humor. These ought, however, to be the embroidery and not the web. A circulating library run as a business will, of course, take on the latter character, and supply whatever will be most readily taken by its customers. But the library in which we are interested to-day combines the good features of both these with others of its own, and is the institution that deserves the name of people's university. It might well copy that broad legend from the seal of Cornell, "An institution where any person may find instruction in any study." Perhaps we should more clearly recognize its proper functions and be in less danger of confusing it with old ideas, if we called it not a "library" but a "people's university."

To the making of such a library many elements contribute. A building will not do it, though it be as beautiful as the Taj and as great as the Coliseum. Money and books, though essential, will not of themselves make such a library. I recall visiting a magnificent building on which about a million dollars had been spent. In it were many valuable books. It was in a great city, and a thousand readers daily ought to have found their way through its open doors. When I looked with surprise at the four or five readers who seemed lost in its superb rooms, my witty friend, the chief librarian, said, "why, there is hardly a day passes that someone does not come into this library."

And I recall a similar illustration which came under my personal knowledge. The detective force of a great city were in hot pursuit of a man who thought it impossible to hide from them. A literary man, to whom he had done a favor, undertook successfully to secrete him through the entire day, and after dark he escaped. The place chosen, where he would be least exposed to recognition from chance observers, was in the public reading-room of a great library, which, like the one before mentioned, was famous for the number of people who did not go there.

We have no time to-day to go into the questions that determine a library's measure of success. Mere mention of heads must suffice. Its location should be central and accessible to all. Its building should be comfortable and convenient. Grandeur plays no part in usefulness. Its hours of opening should be long, for the people's university, like the town pump, should seldom be closed to those needing it. The regulations should be liberal, with as little red tape as is consistent with the safety of the books. It goes without saying that books, pamphlets and serials, should be well selected and as liberally provided as means allow. It would be hard to find a library in which from ten to fifty per cent of its books could not be replaced with others more valuable for its use. In fact it is common to find collections where if the very best could be chosen from the open market, one quarter the number of books would have more value than the whole miscellaneous assemblage. After the books, comes the little-understood catalogues, classification and analysis which vastly increase their practical value.

Only those with special experience can understand how essential to any high success are such appliances. Working in a library without them is like trying to find a score of men in a great city without a directory. You may chance on some one who knows the man you seek and can direct you to him, but the chances are that you will have a long disheartening search and perhaps fail entirely to find him.

Finally and perhaps more important than all the rest is the librarian. If he can furnish inspiration and guidance to the readers who seek his help then may we indeed look for a true university whether large or small, for the small library should have all the high ideals of the large with the best of their books.

And such a library is the real university for the scholar as well as for the people. Of old the pupil was continually with the teacher, and from his lips learned the sought for wisdom; but the printing press has revolutionized all this, and to-day many an earnest disciple has never seen the face nor heard the voice of his master, but has

received all his teachings through the printed page. The "new education" is chiefly distinguished by substituting the library for the text book and dogmatic lecture. Seminaries are springing up in the best colleges in all departments. Students are taught to work in the library as the main object of their course, and when one is able to use skillfully a large bibliographical apparatus and to get quickly and accurately from a great library what he needs, he may indeed claim to have a good education.

Of late years the college library has been taking an entirely new position. Of old it was attached to the chair of some overworked professor or put in charge of the janitor and opened four or five hours per week in term time only. Now it is being raised to the rank of a distinct university department; there are professors of bibliography, of books and reading, and at Columbia we have for the first time a chair of Library Economy. The libraries are being made as accessible as the traditional college well, some of them opening from 8 A. M. to 10 P. M., including all holidays and vacations; they are receiving endowments, e. g., the million and more to Cornell University, Prof. Horsford's great gift to Wellesley, Judge Packer's half million to Lehigh, and the long list of funds given to Harvard, the Phoenix gift to Columbia, and so I might go on with hundreds of illustrations. New and beautiful buildings, some fire-proof, all vast improvements over what was thought sufficient in the last generation, multiply; Harvard, Brown, Amherst, Dartmouth, Oberlin, Yale, the Universities of Michigan, Vermont and Pennsylvania; in this State Cornell, Syracuse, and Madison Universities, and so on. In New York city alone three splendid collegiate library buildings have just been finished; for the General Theological Seminary, Union Theological Seminary, and our own at Columbia, which has cost over \$400,000, and already we plan an enlargement. The colleges are waking to the fact that the work of every professor and every department is necessarily based on the library; text books constantly yield their exalted places to wiser and broader methods; professor after professor sends his classes, or goes with them, to the library and teaches them to investigate for themselves, and to use books, getting beyond the method of the primary school with its parrot-like recitations from a single text. With the reference librarians to counsel and guide readers; with the greatly improved catalogues and indexes, cross-references, notes and printed guides, it is quite possible to make a great university of a great library without professors. Valuable as they are in giving personal inspiration, they can do little in making a university without the library. Just as truly as we found in popular education that the

real school for the mass of people, and for all their lives except early childhood, was the library, so in the higher education the real university is a great library thoroughly organized and liberally administered.

What we need now in higher education is not more colleges but more libraries. Railroads have largely annihilated space and for the preliminary training it is easy to send our boys and girls a few hundred miles to college; but for the training that must be carried on all through life they need the people's university, close at hand where it may be reached without serious interruptions of regular pursuits. It is like the post-office and market compared to the registry of deeds. One does not object when he buys an estate to go a long distance to record his title but when he wishes to mail a letter he insists on having a post-office at hand. Higher education therefore demands new libraries at accessible points throughout the State and their wise and economical establishment requires guidance and supervision such as the Regents of the University can best supply. State after State has partially recognized the claim of the library by passing laws allowing communities to tax themselves for its maintenance and the time has come when the recognition of its true place must be made complete. If New York will not now lead as is her wont, at no distant day the greatest of the States will have to follow.

If time allowed I should like to sketch to you the recent development of the modern library idea. I merely mention the great steps, referring you for fuller information to the *Library Journal*, *Library Notes*, and the circulars to be had on application at the Columbia Library School. We date active progress from 1876 when, after a four days successful conference in Philadelphia, the American Library association was organized. It holds annual meetings, marked among conventions by their practical work and enthusiasm. The same year we started an official monthly organ, the *Library Journal*, now in its thirteenth volume. Shortly after followed that most important practical factor in the library work, the Library Bureau of Boston, which undertakes to do for libraries such work as is not practicable for the association or magazine. It equips large or small libraries with everything needed (except books and periodicals) of the best patterns devised by or known to the officers and committees of the association, of which it is the tangible representative for manufacturing and distributing improved appliances and supplies. It secures trained cataloguers and assistants or finds positions for those out of employment, gives technical advice in its consultation department, and in all practicable ways fosters library interests. Ten years after

the *Journal* which, because of its limited circulation, barely pays expenses at five dollars a year, came its colaborer, *Library Notes*, a quarterly magazine of librarianship, specially devoted to the modern methods and spirit, and circulated widely because of its low price. Last of the great steps came the school for training librarians and cataloguers which two years ago was opened at Columbia College through the same influence which had before started the association, *Journal*, Bureau and *Notes*. You who appreciate what normal schools are doing to improve our teaching, will remember that librarians need a training school more than teachers who have had the experience of their own school-life as a pattern ; for librarians till two years ago never had opportunity for training, and came to their work like teachers who had been self-taught, and not only had no normal school advantages but had never been in a school or class-room even as pupils. As evidence of the growth of the idea we may note that this Library School which began two years ago with a twelve weeks course and provision for five to ten pupils has in two years developed to a course of two full years with four times as many students at work, and in spite of the rapidly increased requirements for admission is to-day embarrassed by five times as many candidates as it can receive. This means a recognition of the high calling of the modern librarian who works in the modern spirit with the high ideals which the school holds before its pupils. Of this work I said recently to the collegiate alumnae :

"Compare this work with that of the clergyman or teacher, whose fields of usefulness are universally put in the first rank. The clergyman has before him for one or two hours per week, perhaps one-tenth or one-twentieth of the people in his parish. Not so many, indeed, when we remember how there are often little struggling churches of a half-dozen denominations, where one strong church could do all the work much better. Beyond this very limited number for this very limited time, the clergyman is dependent on the slow process of personal, parochial calls. I yield to none in my appreciation of the great work which he does, and do not forget the constant stream of good influences coming from his daily life, and the many direct efforts he puts forth; but I am speaking now of his work as a preacher, and of the limits which circumstances seem to set to it.

"The teacher has a larger proportion of her constituency in the earlier years, but only for a few hours a day, and only in the months when schools are in session. It constantly happens that just as she becomes deeply interested in a bright, promising boy or girl, and feels that he is an opportunity to develop a strong character by

patient work, the child comes and says: 'I am not coming to school any more; I am going to work in the factory,' or, 'I am going to help mother at home.' For the great majority the work of education is hardly begun before the necessities of life take them away from the teacher's influence.

"But the earnest librarian may have for a congregation almost the entire community, regardless of denomination or political party. His services are continuous and in the wide-reaching influences of the library there is no vacation. When a bright boy or girl has been once found and interested and *started*, he is almost sure to continue under these influences all his life. It has been found entirely practicable for a skillful librarian thus to reach and interest people who have never been in the habit of reading; to lead readers into new and more profitable fields, and to create a thirst for better books. In fact the number of ways in which people can be helped is only equaled by the power and lasting character of this influence which comes from good books. Recognizing these facts there are preachers who are looking to the adoption of the library profession as a way to spread the Master's word even more effectively than in the pulpit; and there are teachers whose whole hearts have been given to the cause of popular education, who are eager to enter this newer field, because they recognize in it a still wider opportunity."

Is it not true that the ideal librarian fills a pulpit where there is service every day during all the waking hours, with a large proportion of the community frequently in the congregation? Has he not a school in which the classes graduate only at death?

Much is already done, and while the work is in its infancy, it is an infant so vigorous as to leave no fears of its manhood. A last great step remains to be taken, and to-day and here it ought to be begun. The State long ago recognized its school system as one of its bulwarks, and fosters it with yearly increasing expenditure. Now it must recognize educational libraries as necessary companions of the most successful schools. This eminent body represents the higher education of the Empire State, which the Regents of the University are charged with fostering. Tell me if you think they can, without taking action, face our facts that the best reading more than the schools give education to our people; that the colleges provide for only the trifling minority who can afford time and money to share in their great advantages; that the influence conceded to be the most potent is left without guidance, supervision, stimulus or support. When inspection shows that a school has attained a certain standard, it is honored by being made a "Regents' Academy." Can we do less

than give similar inspections to libraries, and when one is found doing the high work at which we have glanced to-day, honor it, by making it a "Regents' Library," and by virtue of success in its high calling, a member of this Convocation which represents the institutions that give New York its higher education? What greater stimulus can we place before our growing libraries than such certain and official recognition of superior work?

Many advantages are sure to spring from entering wisely on this course. I do not advocate undue haste. The essential thing is to recognize the principle and then meet year by year the growing demand for advice and inspiration. There need be no obligatory supervision. A library secretary would soon have more requests for advice and help than he could well answer. New communities are constantly waking to the need of libraries, and would be deeply grateful for wise advice as to the best means of developing interest, raising money, selecting, cataloguing and circulating books, and the thousand details which make or mar success. It is well known to the experienced that the same money can be made to do double good under wise administration, and yet for lack of just such help as could be afforded, at a cost to the State too trifling to be worth mentioning, many a community either fails to secure its library or fails to get from it all the good that the time and money could be made to yield.

There are few topics where technical knowledge and experience are so important as in establishing and administering successfully a library of the highest grade in its ideals, even though its income be small and its books comparatively few. It requires no vivid imagination to picture the practical value to the State if any town about to found a new library or improve an old one could come to the Regents and have, without charge, the best guidance for its case that the combined experience of the library world had yet worked out. Time allows me only to lodge the thought in your minds. No expensive machinery is required. A single salary with hearty recognition of the work would start it creditably.

Such an officer would soon find money and books placed in his hands by those wishing to give them where they would do most good, and recognizing his superior facilities for wisest distribution. The excellent results that have become notable from the Regents' school examinations would be duplicated in good effects on library interests by competent inspections, reports and suggestions to such libraries as wished them. New York's splendid collection, the best owned by any State library, is about being moved into these adjoining rooms which are admirably adapted for the focus of State library interests and the central people's

university. The Regent's office is ideally fitted to be the center of a system of university extension, such as is marking an era in the great English universities, and carrying to all parts of the kingdom the learning of Oxford and Cambridge and the other great schools, and for the first time giving them a practical connection with the lives of the masses, and making them a new and mighty force in working out higher standards of good citizenship. This work naturally centers at local libraries. Fellows and teachers from the colleges go out for a trifling fee, to distant towns, to give courses of ten to twenty lectures on political economy, history, literature, science or art; indeed the whole range of the university curriculum is open. With the lectures are given references to the best books to be found in the local libraries, and the common people hear them gladly. Interest is aroused. Many are led to read and learn more than has been told them in the lecture. Those most interested meet for discussion and further instruction, and the practical results have been so much beyond expectation that the universities are allowing work of this kind to be credited as a part of a university course leading to a degree. This means that many a man who would otherwise spend his time idling about saloons, secures instead a higher education worthy the name. Cambridge alone, I am told, has carried on over 600 of these admirable university extension courses in the past ten years.

Do I hear some one say that New York has tried the scheme of libraries for the State and that it has failed? With that story I am familiar. We have learned by experience what not to do. Every great movement is apt to succeed only through repetitions and failures. The district school system failed because too widely dissipated and because it had no supervision such as I have merely hinted at to-day. Who could expect 12,000 libraries to be administered successfully in a State where there were not twelve men that could be fairly said to be thoroughly fitted for the work?

The great State of New York led all the rest in recognizing, many years ago, the importance of good reading and in trying to meet the want. Seventeen other States followed its example and we were proud of our leadership. To-day State after State has left New York behind. More than once in our national library conventions have we of New York been forced to hear her slightly spoken of because she was doing so little modern library work. But no State has yet given recognition to all that this new work implies. If New York will again rise to the occasion and officially recognize the library as part of its system of higher education and give to libraries of the highest type as fast as they reach the standards a seat in this Convocation as

being in fact as well as in resolution co-workers with the colleges and the universities, then again shall she wear her crown of leadership. If she fails, before many more meetings some other State will have seized the opportunity that now is hers.

Gentlemen of the Convocation, it is to-day your high privilege to lead. To-morrow it may be your bounden duty to follow.

REMARKS BY PROFESSOR J. H. GILBERT, OF THE ALBANY HIGH SCHOOL.

MR. CHANCELLOR, LADIES AND GENTLEMEN OF THE CONVOCATION.—Professor Dewey has spoken so well and so eloquently of the library as it should be, and of its proper sphere, that I feel utterly incompetent to follow him. He has spoken of it from the librarian's standpoint, allow me to speak of it as a teacher.

Every school of secondary instruction represented here has, I suppose, a library, selected with more or less care. So much has been said and written in regard to this matter, so many lists of the best books have been published, so much money has been given by the State for this purpose, that our academic libraries ought, in character at least, if not in volume, to be all that could be desired. Now, the question arises, how shall we use these libraries to the best advantage of the pupils? It is one thing to have a wholesome bill of fare; it is quite a different thing to give each one his "portion of meat in due season."

It should be the work of the teacher to direct the pupil how to use books. He can find no work in the school-room of greater importance. What can he do that is more practical or that will lead to better results? It is a work that has been sadly neglected in the past. If the libraries have been used at all in connection with many schools, the pupils have been turned loose, so to speak, to graze promiscuously in them. This indiscriminate and thoughtless gormandizing has, in some instances, produced a dislike for all literature; in many other cases it has caused a mental dyspepsia that has proved disastrous to all true intellectual growth.

Of course the school can do comparatively little for the pupil in this matter. It can do little for him in any other line of work; but it can initiate work; it can start a line of thought and investigation that shall run through all life, and prove of inestimable personal value.

Dr. Dewey has well said that education is a matter that is for all life, and that the work in the schools is pitifully small. Not many years ago the pupils in our academies studied about literature; now we study literature itself. The old library has also changed somewhat—partly in

its character, but more in its use. Professor Dewey says: "The old library was passive, asleep; a reservoir, or cistern, getting in, but not giving out; an arsenal in time of peace. The new library is active—an aggressive, educating force in the community; a living fountain of good influences; an army in the field with all its guns limbered." In some of our cities it is, indeed, such a vital power for good, notably in Boston, Providence and Worcester.

How shall we use it in connection with the study of literature in our secondary schools, so as to produce the best results? How shall we aid our pupils in forming a correct taste for a pure literature? How lead them into the hidden life of the author, so that they may appropriate his thoughts, and make them their own?

First, the teacher must not only be well fitted for this work by education and aptitude, but he must also be thoroughly in earnest. The true study of literature is not the "elegant trifling" that many suppose. Now, if as some one says: "A true literature springs from the depth and fullness of intellectual life," it can only be apprehended by him who receives it with a corresponding energy of thought and feeling.

It is the duty of the teacher to inspire this mental condition, to awaken in the pupil a hunger for "the dainties that are bred in a book." Here, as well as in any inductive science, it is not the province of the teacher to cram the pupil with facts or even principles, but to lead him to discover them. The teacher must continually open up new and delightful avenues of investigation, to really lead while he seems to follow.

He must begin with the right books—books within the pupil's comprehension; he must advance by slow and careful steps from the lower to the higher, from the known to the unknown. His object should be to lead up to a consideration of the best books—such books as Macaulay says have been tried in the furnace and have proved pure, which have been weighed in the balance, which have been declared sterling by the general consent of mankind, which are visibly stamped with the image and superscription of the Most High. "They are the books that nourish all the world." They are thought-suggesting; they abound in lessons in clear thinking and clean expression; they sparkle with wit, or are filled with pleasing sentiments—poems that spring from real feeling—a real throb of emotion, not a surface itching for expression; books that give the utmost grandeur to our conceptions of nature, or the utmost force to the passions of the heart. As Hazlitt says of Milton's *Lycidas*: "The gusts of passion come and go like the sounds of music borne on the winds;"

thoughts as Wordsworth says: "whose very sweetness yieldeth proof that they were born for immortality." The teacher should lead up wisely to the proper consideration of such books, till at last the pupil is able to feel in some degree what Shakespeare felt, and "to follow with reverent footsteps where Milton leads the way."

But to leave generalization; it seems to me the books of our libraries should be used more than they are for sight-reading, both in the ordinary reading exercise, as well as in the recitation in literature. The pupil should learn how to use books by using them under wise direction. It will be well to have each book or selection so presented read twice, once to get into the atmosphere of the author, and to obtain a general idea of the work, on the principle that the whole should be considered before its parts are examined; then it may be read again more critically with the aid of notes—those necessary evils—if need be. On this second reading, it will be well to direct each pupil to make such abstracts or selections from the matter as he shall deem most valuable. These selections should, for convenience, be made on small pieces of paper of uniform bill size. These abstracts should be made with reference to the thought contained, or the style or both. When looking for ideas they will generally take the form of maxims, short, terse, epigrammatic, such as condense a whole subject into a few words. When style is considered the selections may consist of short sentences containing a happy collocation of words that express the idea with directness, force or beauty. Phrases may also be selected in this connection, and it may be well to require the pupil to write, also, their synonymous words, phrases or sentences. These selections should all be made during the reading, without the prompting of the teacher. At the close of the exercise they may be used for immediate class review. They should then be indorsed on the back of the slip with the leading thought or word, and such other description as may be necessary, and preserved for future use. When a large number have accumulated they may be classified according to certain subjects. This classification is an excellent practice for concentrating the thought on the passage, and making the pupil alive to its real point and significance. It also puts it into convenient shape for future reference.

This course systematically pursued each day will secure attention method, point and directness and will constantly be productive of tangible results. Incidentally the pupil will thus become acquainted with some of the best sayings of the best men and be able to use accurately those quotations which are the world over "the parole of

literary men," as well as to escape the imputation of having "just enough of learning to misquote."

Some one has said that in the best books every sentence is filled with the writer's living, breathing quality, just as in the perfected honey-comb every cell is filled with honey; most books contain little honey.

There is a great difference in persons in their ability to select the pure honey from their reading. The gift is largely acquired. The habit not only leads to scholarship, it is scholarship. To create this habit should be the constant aim of the teacher.

Allow me to suggest that, in the use of the library for sight-reading especial attention should be given to the style of the writer. Perhaps the almost universal failure to develop a wholesome style is owing to the fact that it is not made the object of the requisite hard study and attentive reading. Whatever merit the style of our pupils will ever possess will be mainly the result of this careful, attentive reading of the best authors. No one will ever master the mechanism of language, except by a systematic and continuous struggle after excellence. This result is worth all it costs; for as some one says: "Words lead to things, and he that is careless in the use of his words and phrases is apt to be careless in his ideas;" or to quote from Dr. Johnson: "Negligence and carelessness long continued will make knowledge useless, wit ridiculous and genius contemptible." Let the teacher follow Lord Macaulay's direction, and encourage his pupils to select from their reading "strong plain words, Anglo Saxon or Norman French of which the roots lie in the inmost depths of our language" — to note especially those happy combinations of words in which a phrase paints a whole scene, in which a line portrays a character, as well as those direct and forceful presentations of truth by which "our thoughts are widened" and our whole being elevated.

I know no better road than this that has been indicated by which they may rise above the dead level of "trivial observations, beaten topics, and common thoughts," and gain a power of expression that constant cultivation may raise to excellence.

If it should be found impracticable to do much of this work in class exercise, the teacher may occasionally give each pupil a book to read at home, making notes and extracts for class work. He should never read without pencil and paper. Allow me to say that in my own reading I have found this method much more serviceable than the common-place book or the Index Rerum.

The teacher should instruct his pupils by actual object lessons, often repeated, in the proper use of catalogues, indexes, cross-refer-

ences, notes, etc. Show them how to find what they need. Teach them how to use general indexes—such for example as Poole's Index. It would be well to place in the library a few books from which the table of contents has been removed, and let each pupil make a careful index. You remember what Lord Macaulay said of the benefit of his early discipline in indexing.

The teacher may occasionally give the pupil a book for review and analysis. This, as well as indexing, is an exercise that few people are able to do well. It should be taught in the schools, not only for its worth in itself, but also as the best way to become thoroughly acquainted with the book.

The library should be used more than it has in the past to throw light upon or to illustrate the ordinary work of the school-room. For instance, how much interest and value would be added to the ordinary recitation in history, if, occasionally, articles were read from various authors bearing upon or illustrating the same subject. Such work is not lost though it may not appear as so much per cent. on examination day.

The library should be used, not only for the development of the pupil, but also of the teacher. He should use it in the preparation of every day's work. He might save himself from being characterized as "an old pedagogue" by carefully reading the modern works on pedagogy.

I think it was Dr. Todd who once said that next to knowing any thing about a subject is the knowledge of where that information can be found. To the scholar the reference library is a storehouse of facts and material. To know how to use it is itself a liberal education. The use of such books should begin under the direction of the parent or teacher. Each school-room should contain a few good works of reference readily accessible, and the pupils should be encouraged to consult them at all times. The wise teacher will never answer any question that the pupil can answer for himself. He will constantly send him to these books for information. He should, however, show the pupil the many sides from which a subject may be investigated, or he will fail to find the choicest material. It is wonderful how few people know how to find all there is in a cyclopædia on a given subject. The pupil will thus in time acquire what some one has called "an index instinct." What an advantage it would have been to most of us if this work had been systematically commenced and pursued in our school-days.

I suppose we should all agree that the book most valuable for such school-room reference is a quarto dictionary. To this should be added

a good reference atlas, a gazetteer, a cyclopædia of biography, and, if possible, a simple and brief general cyclopædia. For this purpose such cyclopædias are especially to be commended as give not only valuable information, but also direct the readers to a more extended discussion of the topic in other books—those in short that refer to the bibliography of the subject. This will naturally send the pupil to the reference library. Here the aid of a skilled librarian is especially useful, not only to furnish the pupil with the right books, but also in the right order, to answer all proper questions, and to lead the student to estimate properly the relative value of the conflicting statements of authors.

The pupil should make careful notes or abstracts such as have been already described, and submit them to his teacher. This should never be omitted, or the work will lack method, thoroughness and accuracy. These notes and abstracts should be filed and preserved.

President Barnard has well said: "A collection of books, however large, is of little value unless they are so classified and arranged as to enable the seeker after knowledge, who desires to turn them to account, to know precisely what they contain suited to his purpose, and how to lay his hand on it promptly."

Permit me in closing to speak briefly of the classification and arrangement of the library of the Albany High School. It is that advocated by Professor Dewey, and we like it. Our reference library is a quiet little room provided with accommodation for making notes. It is constantly used by the pupils of every grade. Our boys and girls have access to it on alternate days. They visit it only at the time of their study hour. Each study hall may send a specified number at a given time. Their names are first entered in a book provided for that purpose. They take with them a "library permit," which they return on going back to the "study hall." We feel that the reference library is of especial value in our school work.

We hope to create in many of our pupils a habit which shall in after life lead to an intimate acquaintance and a definite knowledge of books—that incarnated humanity as Carlyle puts it—to such an acquaintance as shall prove a mine of useful information—as shall minister nobility of thought, and be a guarantee against vulgarity of style.

REMARKS OF PRINCIPAL O. D. ROBINSON, OF THE ALBANY HIGH SCHOOL.

MR. CHANCELLOR.—So much of information and of interest has already been presented by the speakers upon this question that I will only detain the Convocation to notice what may be to some an item of interest. Professor Gilbert has already noticed the application of library

work in the Albany High School. This is a new matter with us. Although we have had a library for many years, yet its use has been limited. Last year a new member of the board took an especial interest in this library matter, and as a result of his observations and thought we separated the library into a circulating and a reference library. I believe that much good can be done even by a small reference library, if it is properly managed. The difficulty with us was how to make the library a benefit to the scholars and not an annoyance to the teachers. Our school will average about six hundred pupils. The problem was, in a school of such a size as this, how to give library privileges in such a manner that the annoyance should not more than counterbalance the privilege. A very simple set of rules has done the work. They have worked admirably. At the same time in our school, during the same divisions, there are being held exercises in the different studies, such as mental and moral science, English literature, all the histories, etc. All the different teachers are carrying on their work, and in all the different classes there would probably be something to be looked up every day. This means a great deal of confusion; many scholars are out of these classes at the same time, and in a school the size of ours, a great deal of bother to the teacher in the way of questions. So, altogether, it would be a great annoyance, and regulations were found necessary. We adopted a system of permits. A permit is a piece of cardboard of large size, having on it the name of the room to which the permit belongs. The following rules were adopted: First, the girls and boys should use the library on alternate days; second, no books should be taken from the reference library; third, permits were distributed in proportion to the number of students in the class; fourth, each study hall should have its proportion of permits. Whenever a permit was given to a scholar, he at once registered upon a book kept for that purpose. In this way the number of scholars using the library can always be regulated. The result has been entire elimination of confusion, and there is now no trouble caused to any teacher.

The Functions of University Fellowships.

By DANIEL KILHAM DODGE, Fellow at Columbia College.

At present the great question in higher educational movement is that of the university. Everything that concerns the development of the university is eagerly discussed and every change that promises improvement is readily adopted. Although much has already been accomplished in this country in the extension of our universities, much still remains to be done, much perhaps to be undone. Though we have profited greatly by the experience of others, we have not succeeded in avoiding all mistakes, and now at the beginning we should take care to rectify these before they shall acquire the sanctity of settled institutions. We should remember that the success of the university depends upon constant improvement and extension. The university that is believed by its officers to have reached a state of perfection is surely nearing its fall. Although a certain degree of conservatism is a very desirable and laudable quality, yet a blind clinging to old forms that have outlived their usefulness, is both foolish and destructive.

Heretofore our educational efforts have been directed mainly toward improving our schools and colleges, but we have now reached a stage in our intellectual development where we can profitably turn our attention to the higher branches of learning and to the development of university work. Among the departments of the university, none is of greater importance than that of fellowships. Although of comparatively recent origin in this country, in England fellowships have for many centuries contributed to the glory and usefulness of Oxford and Cambridge, and already in some of our own institutions we are beginning to feel the good effects of their introduction. It is of this subject of university fellowships that I propose to speak briefly to-day.

Before beginning this afternoon's discussion, it may be well to fix clearly the distinction between scholarships and fellowships as understood in most of our universities. A scholarship is a sum of money given generally to an undergraduate on passing a satisfactory examination upon a stated course of study. It is a reward for past work,

entailing no further responsibility on the part of the recipient. A fellowship, on the other hand, is a sum of money given at intervals for a term of years to some graduate who has shown special promise of future success in a particular branch of study. Besides being a reward for past work it is an earnest for future endeavor and demands from its holder some return, either in teaching or in original research. Scholarships vary in amounts from fifty dollars to \$150; fellowships average \$500 per annum. The scholarship concerns itself both with the college and the university; the fellowship with the the university alone.

It may be well to state further that my remarks this afternoon will be based largely on the methods employed at Columbia College, with which I am naturally most familiar, with occasional references, however, to the other leading universities of the country.

At Columbia, fellowships are divided into three classes, first, the prize fellowships, of which two are given every year, generally to the two men graduating highest in arts and science respectively. These fellowships are held for three years. Secondly, the tutorial fellowships, which are held for only one year, but with the privilege of indefinite renewal. Their holders are assigned as assistants to the various departments. The remuneration in both these classes is the same, \$500 a year. It may be proper to add that these fellowships are paid by the college, none of them being endowed. The third class, the honorary fellowships, have no moneyed value; but their holders are expected to give certain instruction, receiving in return free tuition and such privileges as are accorded to other fellows. The tutorial fellows and some of the prize fellows now fill certain positions formerly occupied by tutors, two fellows dividing such position between them, on the principle, perhaps, that, tailor-fashion, two fellows go to make one tutor. The system of prize fellowships has been in practice at Columbia since 1872, that of tutorial fellowships since 1883, and that of honorary fellowships more recently still. At Johns Hopkins the system of prize and honorary fellowships has prevailed since the foundation of the university, and at Cornell, Princeton, Yale, and several other universities through the country fellowships exist in greater or less numbers. The amount of remuneration varies but slightly, never falling below \$500, seldom exceeding that sum.

One of the greatest difficulties that offer themselves to the college authorities at the present day is the lack of money, or rather the impossibility of persuading would-be benefactors to give their money in the proper way. Where you will find ten rich men willing to benefit their alma mater and glorify themselves by erecting a dormitory

or a chapel, you will with difficulty find one willing to found a professorship or endow a department. They are not satisfied with a mere chair, they want a whole building. Now the sooner men are disabused of this idea of the superior attractions of brick and mortar over brains, the better it will be for our colleges. Not only professorships, but fellowships also are fit subjects for the wealthy alumni's favor, and it is particularly in this latter connection that I am led to speak of endowments. Nothing reflects greater credit upon the good sense and loyalty of an alumnus than the endowment of a fellowship, nothing that he can do will more greatly benefit his alma mater. The university should not be called upon to bear any expense that may properly be assumed by its alumni. I look forward to the time when our post graduate courses shall be absolutely free of expense to all worthy students. I say post graduate courses advisedly. The students at the college are in the vast majority of cases under age; hence their dependence upon parents is felt to be perfectly proper. But when the student reaches man's estate, as happens with the majority of those pursuing post graduate courses, he naturally desires to feel as independent as possible. The absence of fees will do much in this direction, the multiplication of fellowships will do far more. The general subject of university endowments deserves to be treated by itself, and I shall not attempt more than a glance at it in connection with fellowships.

First, as to the amount of each endowment. It is of prime importance that the recipient of a fellowship should be made absolutely independent by its income; he should not be forced, as so often happens, to supplement it by outside work. In New York city the amount of a fellowship should not be less than \$800 a year; in some other places the minimum amount might be made a little smaller. It is further extremely desirable that we should have certain fellowships of greater amounts, \$1,000 to \$1,200, to be bestowed upon students showing very marked ability. The great fellowships of Oxford and Cambridge have often fostered talents that might otherwise have been lost to the world.

Next, as to the bestowal of the fellowship. This should be left absolutely to the discretion of the members of the university faculty, who alone are competent to decide in this matter. Whether the appointments are to be made by competitive examination or by direction of certain members of the faculty must be decided by that body. The founder of a fellowship should have the good sense to understand that his business interest in the endowment ceases when the money is handed over to the university. It would be as feasible for the founder

of a college to appoint its president as for the endower of a fellowship to nominate its holder; though for aught I know that may be the custom in some of our western communities.

Next as to the return to be made to the university by its fellows, and here the importance of endowed fellowships appears in special prominence. At present, university authorities are inclined to economize on fellowships, to make the fellows earn their salt. It often happens, as I have said, that two fellows, receiving \$500 each, will do the work of one tutor at \$1,200, the difference just paying the tuition fees of the former. Now, this is radically wrong. The university should pay for the tutor, the fellowships should pay for themselves, should be endowed. In this the university makes a double gain, to say nothing of the fellows themselves, by obtaining a more experienced instructor and by allowing the fellows to engage in original work that will add greatly to the reputation of the university. It may be claimed by some, however, that the drill in teaching will be of great value to young men that look to teaching as their profession. That is very true to a certain extent, but the present danger is in allowing the class-room work to absorb too much of the student's time and attention. Our system of fellowships at present is to a great extent a failure by reason of the insufficiency of income and the too great sufficiency of work required. I think it not too much to say that from these two causes the majority of our fellows do not engage in original work at all.

Having now considered briefly the first three points connected with the subject, the amount of the fellowship, the bestowal and the return to be made to the university by its holders, let us pass on to consider the fourth point—the duration of fellowships. How long shall a student be allowed to hold his fellowship, for a year, for three years, or for an indefinite period? The expediency of life fellowships in this country, for the present at least, seems doubtful. The general tendency appears to be to limit the holding of a fellowship to three years, it being considered that in this time a man should be able to take his doctor's degree and fit himself for university teaching. In most cases, however, a fellowship of three years may be renewed, on its expiration, for another year or for even longer.

The main argument in favor of the three year limit is based upon supply and demand. The supply of fellowships at our colleges, Johns Hopkins possibly excepted, falls so far short of the demand, that the expediency of granting fellowships for longer than three years seems to many doubtful. Further, it is a well-known fact that fellowships attract students more powerfully than any other feature of the

university, so that the repeated renewal of fellowships held by students that have completed their course of study might very sensibly affect the attendance at the university; on the other hand, the student desiring to retain his fellowship for a longer time, may have the very best reason for so doing and may indirectly benefit the university more than the entrance of several new students might do. A Newton or a Bacon is a greater credit to his alma mater than a dozen students of ordinary ability. I should suggest then that the retention of fellowships should be left entirely to the discretion of the faculty.

The place of study is another point of vast importance. With regard to tutorial fellowships this question answers itself — the holder must stay at home and be a dutiful son to his alma mater; with regard to prize-fellowships, the question is quite different. For the first few years of their existence at Columbia, fellowships were untrammelled in this respect, allowing their holders to study at home or abroad, as might seem most desirable. At present, however, this wise course is not followed, all fellows being compelled to study at Columbia. Now everyone must acknowledge that in many branches a foreign course of study is almost indispensable. There are certain advantages that our home colleges do not and never will grant. The philologist that has studied only at his home college, is only partly trained in his subject. Therefore, fellowships granted on the condition of home-study, fulfill only a part of their purpose. The great impetus given to philological work in this country has come almost entirely from men that have studied in Germany and France, and if the movement is to be carried on properly we must still rely on these countries for assistance. We shall indeed always look to the old world, in philological research at least, for it is there alone that the original worker can find material in MSS. and antiquities.

Under the old plan of traveling fellowships, the student generally remained abroad three years, reporting his progress at intervals to the home authorities. The results of this system were without exception satisfactory. The student obtained the best possible training in his specialty, and by his subsequent success reflected credit upon his alma mater. No one denies their practical advantages. The only sensible objection that can be raised against such fellowships, is that they necessarily incapacitate the holders from making a direct return to the university in the shape of instruction. The man that keeps his family in the city during the heat of summer from motives of economy, does not deny the superior attractions of the expensive watering-places. Perhaps a compromise might be effected between

the supporters of home-study and those of foreign, by which fellows should spend a year and a half abroad, and an equal length of time at home, thus learning foreign methods without neglecting home discipline, or in special cases the time of foreign stay might be extended to two years, and that of home work reduced to one, or *vice versa*. In any case, at least one year should be spent on the other side in serious study. Tutorial fellows should take every opportunity that offers to spend their summer vacations in Germany or France, trying at the same time to have their vacations extended a month or so. I know from personal experience how much can be accomplished in five months abroad. Of course, the salary of the fellowship should remain the same.

The eligibility of candidates for fellowships is another very important point. At present, unless I greatly mistake, Johns Hopkins is the only American university that bestows fellowships upon students other than graduates in its own course, and to this far-sighted policy is largely due the success of this school. Most of our colleges are unprovided with thorough courses of post graduate study, and their graduates, if they desire to pursue such courses, must attend other seats of learning. Now, it is manifestly unfair, besides being highly inadvisable, to refuse these applicants any of the advantages enjoyed by the other students. Besides, it savors too much of a protective tariff. Whether or not we believe in free competition between traders, we must all of us believe in free competition between brain-workers, and anything that is opposed to this principle is unwise and unjust. We should do well to copy the University of Copenhagen, at which students of any nationality may pursue their studies without the payment of a single fee.

I must not neglect to mention a practice that at present prevails to a great extent at Columbia at least, which is considered by some a great evil and which is certainly quite at variance with the original design of the fellowships. I refer to the holding of fellowships by men that are at the same time engaged in outside professional study, either for medicine, the bar or the church. In view of the limited number of fellowships open to competition this seems to be radically wrong. Fellowships are intended to contribute indirectly to the advancement of learning, not to the temporary benefit of the holders. Indeed, a statute exists in Columbia prohibiting the holder of a fellowship from pursuing any professional course outside of the regular university studies, but this statute is not strictly adhered to. The most effectual means of enforcing this statute is to require every fellow to pursue a course of study under the direction of the faculty

and to stand an examination at the end of two or three years for a doctor's degree. Any fellow that should during this time show himself markedly deficient or incapable should be deprived of his fellowship.

Before concluding I wish to speak of a common error regarding the position of the college toward its fellows. It is considered by many that the college is in duty bound to provide positions for its fellows on the expiration of their terms. Heretofore, from force of circumstances and in consequence of the small number of fellowships, Columbia college has been able to give positions to the majority of its fellows; but the idea that the college is in any way obliged to do this is utterly preposterous. When a vacancy occurs, the preference undoubtedly should be given to its fellows, other things being equal, but that is all. The responsibility of the college ceases with the expiration of each fellow's term.

Reference has already been made to original work by university fellows, in reality the ultimate object of all fellowships. We have seen that, for the majority of our fellows, good original work is almost an impossibility. The three years between graduation and professional work should be devoted entirely to study, to preparation for the work that is to come. The majority of our college instructors are hard pressed for time, and unless the habits of study and original research are formed in their early student years it is very doubtful whether they will ever attempt anything outside of the beaten track of every day class-room work, truly the most wretched existence that a man of scholarly instincts can lead. I insist upon this as the leading function of university fellowships, and if this is interfered with, the usefulness of the fellowship is immeasurably decreased. If the fellowship does not allow its holder perfect freedom to devote himself to higher studies its main object is defeated. The employment of fellowships for economical purposes is a very penny-wise policy indeed. Let our fellowships be heavily endowed and freed from the incubus of excessive class-room work, and I feel sure that our fellows will quickly show their ability to engage in original work of a very high order. Now, at the beginning of our true university movement, let us give to this question of fellowships the attention it deserves. While building chapels and dormitories, while endowing professorships and enlarging libraries, let us not forget our fellowships, the department of the university most closely connected with the students themselves.

REMARKS OF PRESIDENT EBENEZER DODGE, OF MADISON UNIVERSITY.

LADIES AND GENTLEMEN OF THE CONVOCATION.—I take large interest in this question, because I have a deep interest in the growth of the American college. I do not know that I would have this interest, were it not that I am afraid that the American college will fail of its mission, unless, sooner or later it has its post graduate course and a number of fellowships connected with it. Very many of these colleges are prevented to-day from having such a course and such fellowships; prevented by want of endowment, not by want of capacity. The endowment brings its large purpose, its large library, and all the facilities that are essential to a post graduate course. But it is a matter of supreme regret, I think, that the American college is thus limited; because the tendency is to weaken and so demoralize its faculty. If they are to be limited in their teaching to their class work, if their hours of instruction are to be indefinitely multiplied, then they are almost doomed to be merely instructors. The vocation of teaching becomes then their exclusive vocation, and teaching not graduates, but those who are only partially matured. They may be men of large capacity, and of wide attainments, but they have no career, no sphere where they can grow, and become themselves leaders of thought in their own departments. I know men thus situated, with large ability and high aspirations, but hampered by lack of facilities. If, now, the endowment could be made ample; if a post graduate course and fellowships could be established, what a sphere of intellectual activity would be opened for these scholars and scientists. But the danger is that their ambition will wane more or less, and thus they will come to perform their duties as teachers in a perfunctory manner; and so all enthusiasm will die out and all growth come to an end.

The aim of every college should be to become a seat of learning as well as a school of instruction. It is not necessary because the college becomes a seat of learning, therefore its great function as a school of instruction should cease. I hold that being a seat of learning, every professor breathes a new and better atmosphere. He takes on a higher life from that atmosphere, and is more of a teacher, because he is a broader and more cultured man. Teaching and scholarship can not be hostile one to the other. I am sure you will agree with me that if the teachers are overrun with their mechanical work, they can not become in the proper sense of the word men of learning. But if the teaching is only for an hour or two in the day, or only three or four hours a week, or only once or twice a week, the college becomes a seat of learning. And only when the college has reached this position can it do something grand for our national life. Now, I believe a fellow-

ship should be appointed for some five years, and its holder should not in any case be called upon to teach. It may seem strange after what I have said that the fellow ought not to be expected to teach. But the view is correct. It is not what you are to expect now, but what you will expect in the future. The reason is this, that a young man who has a reputation to make will work four or five hours more than he needs to do to prepare to meet his class. A failure will cost him much. It is not so with a man who has already made his reputation. He will give just as much time as needed to master his lesson and master his class and no more. But it is not so with the young man. He will use up his vitality in his formal work to leave no spring and flow of enthusiasm in his special studies. Again, I think that the fellows should be reappointed, whenever in the judgment of the faculty it is desirable. This would prove an incentive. They could then become masters in science, or literature, or philosophy, or in any field of study to which they had given themselves. I want to add another thing; I believe in these fellowships, because I believe in seats of learning where men can give themselves to special work. The great danger in this great country of ours is that there is too much superficial thinking in all lines of religion and morals. Go to Washington, you see it there. Go to the Capitol of our State, you see it there. Take the press of our country, you see it there. Go wherever you may, you see it everywhere — at the bar, in the pulpit, in the halls of legislation, and in the study of our professional and literary men. It is this superficial thought which gives rise to the so-called conflicts between science and religion. I do not believe in leaving the great questions of morals and religion to the clergymen of our country. I am, besides being a teacher, a clergyman; but I know full well from my acquaintance with clergyman of all denominations, their limitations. They are limited by the creed, which they are expected to support, and by the denomination to which they want to be loyal. Another point I want to call attention to: I believe in the increasing advance of science. I hail it as I would each new rising of the morning sun! For science is the first revelation of God. And now, when we think of the great essential questions — social, ethical and religious, that are coming upon us, we must look to our institutions of learning where scholars will give themselves to original research, and will embody the fruits of their study in works of permanent value. I strongly favor their every step which goes to enlarge and elevate the universities in this country. I pray that the time may come when the American college shall be on a level with the German University.

REMARKS OF PRESIDENT C. K. ADAMS, OF CORNELL UNIVERSITY.

MR. CHANCELLOR.—I did not come here this afternoon expecting to say a word on this subject, and I should not now encroach upon your time but for some statements in the paper which, I fear, I did not quite understand. I am not sure that I know whether we are to understand certain of his remarks as applying exclusively to Columbia College, or in part also to Cornell University. Some of his statements, which doubtless would apply to Columbia College, certainly would not apply to Cornell University. I now refer to the value of scholarships and fellowships. I understood the reader to say that scholarships ranged from fifty dollars to \$150, and in no case above \$150; whereas the fact is that at Cornell University a scholarship pays \$200 a year. In regard to the value of fellowships, it should be said that while the fellowships at Columbia are \$500 a year, the fellowships at Cornell are only \$400. The fellowships at Johns Hopkins University are \$500, nominally, but of this sum I understand that \$125 is taken out for tuition, leaving the fellowships \$375, or twenty-five dollars less than at Cornell. Now a word in regard to the matter of endowment. I am not sure that the criticisms of the paper are not a little more radical than the facts will warrant. It seems to me certainly true that there are times when the erection of a building or of buildings is just what an institution most needs. It is also true that a man does not always confer a benefit by giving a building. The only way in which a benefactor can help a college, financially, is by giving money in such a way that it will furnish to the college a positive income. Now a building may be a costly thing for a university to receive. It costs a university something to accept a gift of a building; but this, of course, is not the case if it can be made a source of income, as it is likely to be when a dormitory building is given. If a man desires to connect his name permanently with an institution, he can do it by the endowment of fellowships; but it is not the college that he helps by so doing; it is rather the individuals who are students at that college. But as a general rule it is the college that benefactors desire to help. Of course there are exceptions. There are men who are willing to give money for the endowment of research, and that is what the endowment of fellowships means. There have been men in England, for example, who were ready to endow colleges specially for fellowships. Some such colleges have gone on for several centuries without any students excepting the fellows. There are some such at Oxford, but such an adjustment is not in accordance with what may be called the American method. The American people insist upon the more practical side of education, and upon facilities for the teaching of

students who are to go out and have a direct influence upon civilization. It is for this reason that very few college boards would feel justified in establishing fellowships out of the university funds. But how did Cornell come to have fellowships, you may ask. I will answer. There was a time in the history of Cornell University when, financially, it was in bad condition. The people of this State were not aware of the fact, but for all that Cornell University was, financially as well as otherwise fighting a hard battle. It was at that time that five members of the board of trustees—Ezra Cornell, Andrew D. White, Henry W. Sage, John McGraw and Hiram Sibley—took out of their own pockets \$150,000, in payment of the debt of the university. But in doing so they provided that if it should ever be possible, *i. e.*, if the university should ever become financially prosperous, the money should be paid back by the university, and fellowships should be founded by that fund. It was in accordance with this agreement that in 1882 \$150,000 with interest was set aside for the endowment of fellowships and scholarships. It was also provided that the faculty should determine who should receive these fellowships and scholarships. One other provision was made. It was felt, and justly felt, that the majority of the fellows are likely to go into teaching as a profession. As a rule these men are looking forward to teaching as a career. Now it frequently happens that a student desires to show what he can do as a teacher. It is important, therefore, that they should have opportunity, but I never have observed at Cornell that the fellows were unwilling to devote as much as from four to six hours a week to giving instruction. I would add a word in regard to the matter of original research. I was surprised to hear the statement by the author of the paper that it is not possible for the fellows to devote themselves to original research; at Cornell University the contrary is the fact. Almost the whole, certainly by far the major part, of the work done by the fellows is in the line of original research. The essayist is also too sweeping in his statements in regard to the method of appointments. I understood him to say that with the exception of Johns Hopkins University fellows are appointed from the graduating class of the university which confers the scholarships—that students graduating from these colleges were the only ones appointed to graduate fellowships. Now at Cornell, while we have a number of applicants from our own university, we have a much larger number from other colleges, and in the appointments to the fellowships we strive to be impartial. The proper person in our judgment to receive the fellowship, receives the appointment, whether he is a Cornell graduate or not; as a rule the majority are from other colleges.

X.

College Athletics.

By RUSSELL A. BIGELOW, Esq., New York City.

I can claim little originality for this paper. You will find most of the points I shall touch upon much better presented in the various magazine articles which have discussed the general subject of college athletics, during the past ten years.

It would perhaps be well at the outset to mention the writers of the most important contributions to these discussions. An earnest advocate of college athletics is Eugene L. Richards, assistant professor of mathematics at Yale University. His articles in the *Popular Science Monthly*, in 1884 and 1888, give the ablest presentation of the subject, from the standpoint of the students, that has yet appeared. The best criticism of college athletics is perhaps that of Dr. Dudley Allen Sargent, assistant professor of physical training at Harvard University, an educated physician and practical athlete. His articles will be found in the *North American Review* for January, 1883, and in *Scribner's Magazine* for July and November, 1887. Professor C. A. Young, the well known astronomer, of Princeton College, in an article in the *Forum*, 1886, temperately considers the evils and approves of the advantages of the present system of athletics in our colleges. Professor Alexander Johnston, of Princeton College, has written an interesting article on foot-ball, for the *Century Magazine* for October, 1887 (which ought to disabuse a candid reader of many of the foolish impressions of this noble game spread abroad by ignorant and sensational newspaper reporters). Dr. J. William White, of Philadelphia considers the subject, from the standpoint of a physician, in an able article in *Lippincott's* for June, 1887. I am also indebted for suggestions to some twenty other magazine articles. The enumeration of the most important literature of the subject would be incomplete without reference to the well-known book of Dr. John E. Morgan, published by Macmillan, in 1873, entitled "University Oars, being a critical inquiry into the after health of the men who rowed in the Oxford and Cambridge

boat-race, from the year 1829 to 1869, based on the personal experience of the rowers themselves."

I. *a.* The necessity of physical exercise in order to put the body in the best condition for obtaining the best quality and quantity of brain work must always remain the basis for any argument in favor of college athletics. It is fortunate that this necessity is so universally acknowledged that we need not discuss it here. From the earliest times writers on educational topics have advocated physical education as a necessary part of all instruction to the young.

b. As to the results of exercise, Dr. White tells us that it "increases the breathing power, rids us of carbonic acid, and purifies our blood; and that it increases the action of the heart, sending a larger quantity of this purified blood to all the tissues of the body, removing their waste, supplying the material for their renewal, and quickening all the vital processes." He says further: "The main object and idea of exercise is the acquirement or preservation of health; it is by far the most important therapeutic and hygienic agency at the command of the physician of to-day."

c. The rapid growth of cities, so much commented on of late; the tendency of city life to too little physical activity, and the fact that college men are constantly coming in increasing numbers from the cities of the land, and that even larger numbers go to cities after their studies are completed, make it indispensable that they should obtain at college the greatest possible physical development.

II. The first noticeable point in regard to college athletics is their recent growth. We are not called upon to meet and discuss some old problem which has already been determined for us by the wisdom of the ages. The first Oxford-Cambridge boat race was not rowed until 1829. Yale and Harvard began to row in 1852. Base-ball was not played in the American colleges before 1865, while foot-ball does not date further back than to 1875. Thus we see that the whole range of such sports in this country is comprised within the last thirty-five years, while the contests have been conducted on the present scale for hardly more than ten or fifteen years. The literature of the subject dates back less than ten years. It would not be strange that in a system so hastily developed there should be found evils which time alone can wholly eradicate, as they force themselves on the attention of those interested in the sports.

I shall consider first the advantages of college athletics, and then notice some of the evils that have been supposed to be inseparable from the system.

III. Let us consider:

A. The advantages to the athlete himself.

First. In the olden times it was the fashion to portray the student as a weak, sickly, puny individual, with one foot in the grave, but with an enormously developed intellect. Now the critics go to the other extreme and accuse college men of being all muscle and no brain. The athletic class in college is surely greatly benefited by that physical education which is universally admitted to be so desirable. If the proposition needed proof, we might find it in the elaborate series of measurements and strength tests tabulated by Dr. Sargent, in the *Scribner* for November, 1887. They were measurements "of 2,300 Harvard students, of whom 1,700 had never practiced athletics systematically, while 600 had been active members of college athletic organizations from one to four years. Many of the former class, however, were accustomed to some form of physical exercise, and the athletic career of many of the second class was limited to a single season." The difference between the athletic and non-athletic classes in strength and general physical development is clearly marked by these accurate measurements and the tabulation of the results in averages. Dr. Sargent himself says: "In spite of their objectionable tendencies, the beneficial effects of athletic sports upon the development of the physique are evident."

Dr. Morgan's careful and minute inquiry into the after-health of 294 men who rowed on Oxford and Cambridge crews down to 1869, shows very conclusively that the lives of these oarsmen were longer by several years than those of average men, and that an overwhelming majority of them considered their health greatly improved by their early devotion to athletics.

Second. It is of no small value that this training comes at a time when it is of peculiar benefit. The man of thirty can rarely change his vital powers by any amount of physical exercise, but the youth of eighteen or twenty can so increase the size and power of his lungs, and so build up the muscles of the body, that his physical endurance, his fund of vitality for meeting the hard knocks of life can be enormously increased.

Third. Athletics prevent dissipation. No athlete can do good work if he indulges in any form of dissipation. Men, in training, are consequently kept from the various excesses by many considered inseparable from a college career. Whether they will or no, the athletic men are the farthest removed from temptation. They are obliged to keep regular hours; they can not drink or smoke, and they often pay more attention to the studies of the course than they otherwise would do,

in order that athletics may be in no danger of losing their skill by their suspension or dismissal.

Fourth. Athletics foster many a manly virtue. They give their devotees rare mastery of self, and teach them prompt obedience to law. Courage, coolness, resolution, perseverance, unselfishness, presence of mind, executive power, prompt decision, manliness, must all be at the ready command of the athlete. Without any one of these qualities he will be incapacitated for his work. The utmost mastery of all his powers is especially required by the man who engages in the modern games of base-ball and foot-ball. There is no better training-ground than the athletic field for many of the qualities that enable men to do good and faithful work in the world.

Fifth. While it will not be generally conceded I think it is true that devotion to athletics makes studies more interesting. The man who had two hours a day of active, eager exercise is better fitted for work with his books than the man who spends those hours in lazy idleness or than the weary toiler whose mind becomes sluggish by constant effort without relaxation.

Sixth. Professor Richards claims much virtue for athletics in that by increasing the physical vigor of the athletic class in college, a better breed of educated men is produced.

Seventh. In every muscular movement there is more or less brain work. Professor Richards and Dr. White call it body brain work. It is now well recognized that there is such interdependence between the mind and body that it is difficult to tell where the brain ceases to work and where the work of the body begins. In this view of exercise we may regard college athletics as directly contributing to the upbuilding of valuable brain force.

B. What advantages do the non-athletic classes derive from our present system of athletics?

First. They see the evils of dissipation and are influenced to avoid them. It is a valuable lesson to college men to be taught that all forms of dissipation are the most destructive enemies of physical powers and vigor. The temperance of the athletic class makes it impossible that they should be the leaders of vice, and so conduces to the diminution of the temptations to excess.

Second. Non-athletic men are taught by example the value of systematic exercise. They see the physical strength and endurance of the athletes, and in many instances are led to work in the gymnasium or on the athletic field, while without this incentive they would never think of the necessity of exercise.

Third. Athletics furnish a healthy topic of conversation. It is neither possible nor desirable that students' thoughts should be forever taken up with the studies of their college course. They must have other and different topics of conversation for their leisure moments. College athletics furnish a topic for discussion far more healthy and unobjectionable than the common talk of college men in places where there is no athletic interest.

Fourth. We must not overlook the fact that the college games furnish the occasion for an important amount of exercise for the spectators. The non-athletic class walk quite a distance to the ground where the game is played and remain in the open air several hours during its progress. I have never seen this feature of college athletics sufficiently urged upon the attention of critics. It may be because the exercise is of such a character that it does not seem like exercise at all. This very thing makes it the more useful, for it takes away any feeling of constraint that often diminishes the value of exercise which we take consciously for the sake of our health. Although it is laughingly asserted that men go to college to have a good time and not to work, still it is true that there are many in every class who are burdened and afflicted by the multifarious demands of literary and scholarly work, both within and without the college curriculum. They take little exercise, for they mistakenly think they can not afford the time to devote to it; they always have other duties they consider more important. To such men the college games are an untold blessing. For a whole afternoon the strain is relaxed; they enthusiastically follow every feature and detail of the contest. They can not think of their ordinary work, if they would; their cares are all left behind them and they spend an afternoon in exercise without knowing it. Those games are like the pure breezes encountered on an ocean voyage, that blow all the cobwebs out of men's minds and leave them clear and active for the duties of succeeding hours.

Fifth. It should also be remembered that intercollegiate contests cause many men not on the college teams to take regular exercise. The crew begins training in the fall with more than twice as many men as finally take their places in the eight. A second eight is often kept in training the larger part of the year. The foot-ball eleven obtains practice by playing with inferior men from the same college, many of whom have no chance of getting on the representative eleven, but who play to give the college team practice. In a similar manner a second base-ball nine is often organized. It is not probable that these men would take any systematic exercise were it not for the inter-

collegiate contests. Class games and races, which cause much physical training, are no small part of college athletics.

C. There are certain other arguments, general in their nature, which may be urged in favor of athletics in college.

First. It is a point in their favor that they arouse such unbounded enthusiasm in the students. Surely it is not possible that a system all evil, tending to the lowering of our best instincts, should be followed with such enthusiastic devotion by the whole college world. The very eagerness with which athletics are fostered indicate that there must be advantages to be derived from them by those who have the courage and insight to divest them of the tendencies that make toward evil.

Second. Athletics furnish a stimulus to exertion, and teach men the value of earnest, active work.

Third. Athletics promote cordiality between different colleges and arouse a desirable competition, which causes the undergraduate to attain broader views than those to which the narrow landscape of his own college is confined. They enable different colleges to meet on a plane where generous rivalry is encouraged.

Fourth. College athletics diminish the evils of class feeling by the association of men of all classes and departments in the different athletic organizations, and furnish an outlet for feeling between classes which otherwise might be displayed in rushing, hazing and other disorders, by substituting in their place a generous rivalry on the athletic field.

Fifth. It may seem strange to some of my hearers that I should emphasize a point made by Professor Richards, that college athletics furnish a topic in the discussion of which instructors can meet the students "without the chilling reserve of the recitation room." There is not a man who has ever been under the instruction of Professor Richards, who has not honored him for the affectionate interest he has taken in all that concerned his pupils. We have admired his strict impartiality and stern discipline in the recitation room, we have felt his earnest sympathy with our misfortunes or trials, we have many times honored him with our votes as the most popular instructor. Does not the hint he has given us about the chilling reserve of the recitation room point to one of the great sources of his success in influencing those whom he instructs?

Seventh. Perhaps the most successful argument in favor of college athletics is the fact that they promote good order and discipline. It is sometimes asserted that the contrary is true, but the array of authority I shall now quote makes it clear that athletics are the enemy of disorder.

A writer on athletics in the *Contemporary Review* in 1866 says "We believe and gladly acknowledge that these exercises have contributed a good deal towards the improvement of manners."

Dr. Felix L. Oswald tells us that "Some of the besetting vices of youth can with a certainty be ascribed to an excess of that potential energy which finds no outlet in the functions of our sedentary life."

In an article on college disturbances in the *Forum* for 1888, President Bartlett, of Dartmouth, says: "In *much fewer instances* and in *far less aggravated modes* than formerly, it (disorder in college) still lives on." "While college athletics have *done much* for good order, they have nowhere wholly eradicated the evil."

Professor Young says: "And yet, on the other hand when one compares the condition of a college in which this state of things prevails with its conditions twenty-five years ago, it is very clear that there has been a decided gain in respect to morality and good order—a gain which may fairly be ascribed to the effect of athletic sports in providing a safety-valve for the superabundant physical effervescence of the young men, and in making them observe the deleterious effects of bad habits." Again he says "Twenty or thirty years ago a considerable portion of the students, to be sure, at some of the colleges played the old-fashioned foot-ball or wicket playing in the spring; but most of the more studious took no exercise but walking, and the lazy and luxurious lounged about by day, and let off their steam from time to time in nocturnal disorder and dissipation. It might be unsafe to assume that if intercollegiate contests are prohibited, no other means can be found to maintain and encourage college outdoor sports; but it is unquestionable that there would be great difficulty in the case, and if the evils that attend the present system can possibly be remedied, remedy should be chosen rather than extermination. The evils are undeniable and serious, although by no means so *enormous* as some seem to think, nor, in our belief are they remediless."

Professor Richards tells us that athletics furnish occupation for the physically active. "Before the day of athletics such men supplied the class bullies in fights between town and gown, and were busy at night in gate stealing and other pranks now gone out of fashion. Any instructor who has kept track of the ways of college during the past fifteen years, can not fail to be struck by the decreasing number of the really great disorders, by the mildness of those which remain, and by the increasing regard, on the part of the students, for college authority, college property, and for the rights of fellow students. The revolt against authority and the great disorders between classes now, occur

with the most frequency, not at colleges which have the greatest number of students and the most extensive athletic organizations, but at the colleges in which the students either are not able, or are not allowed to establish such organizations. The disorders which used to occur in New Haven thirty or even twenty-five years ago, ought to convince any candid man that, however great the present evils of college life are *with* athletics, the past evils *without* athletics were worse. On one occasion in those 'good old times,' in consequence of a conflict between student and town boys, a cannon was brought before the college buildings to demolish them. The writer remembers another occasion when there was a collision between students and firemen, and one of the firemen was mortally wounded by a pistol shot. That night the dormitories were bolted and barred, and the students acted like a besieged party, and were making preparations for a possible fight the next day. According to the testimony of men in the college in those days drunkenness was more common."

President Eliot, of Harvard says: "It is agreed on all hands that the increased attention given to physical exercise and athletic sports within the last twenty-five years, has been, on the whole, a great advantage to the university; that the average physique of the mass of students has been sensibly improved, the discipline of the college been made easier and more effective, the work of many zealous students been done with greater safety, and the ideal student transformed from a stooping, weak and sickly youth, into one well-formed, robust, and healthy."

IV. In considering the evils of college athletics, we shall do well to remember, as Professor Richards has pointed out, that "even the divine government of the world does not exclude the existence of evil."

A. We shall begin with some untrue accusations which are brought against athletics.

First. It is objected that the athletes devote too much time to training. Exactly how much time should be given to exercise is a matter about which there is no substantial agreement. Professor Richards maintains that two to three hours a day during the fall and spring, and two hours or less during the winter, are by no means excessive. Dr. Sargent, on the other hand, holds that two or three hours a day are "more time than is needed to keep the body in good working condition, and more than the mass of students can spare." Dr. E. A. Parkes, in his well-known work on "Personal Care of Health," thinks as much time should be devoted to bodily exercise as should be given to mental and moral exercise. The tendency in all our schools is

oward too much *mental* and too little *bodily* exercise. When we consider the immense advantages to be derived from healthy exercise in the open air, it seems probable that no considerable portion of the two to three hours a day devoted to athletics by our college athletes is thrown away. The evils of too close confinement to study are far more serious in their effects than the possible loss of an hour a day, in maintaining a state of perfect bodily health.

Second. The claim that "athleticism is an enemy to discipline," has been sufficiently disproved by the testimony of well-known educators, which I have quoted above.

Third. The claim that college athletics produce "complications in school government," is puerile, unless it means the same thing as the objection that athleticism is an enemy to discipline, which is untrue.

Fourth. As to the claim that athletes neglect their studies, Dr. Morgan tells us that the Oxford University oarsmen were at about the average of their classes in point of scholarship, while the Cambridge oarsmen held a better rank and took more prizes than the average of their schoolmates. The athletic men I have known, have taken fully as high a rank in the studies of the college course, as one would have expected from men of their natural ability and natural power of application. I have known many prominent athletes who were the recognized leaders of their classes in scholarship and letters. It may be worthy of remark in this connection, that Dr. Sargent tells us the men take nearly the same rank in required gymnastics which they take in the *regular studies* of the college course.

B. Certain evils of which mention is made, are easily remediable.

First. It is said that athletes subject themselves to liability to dangerous strains in the course of their training. That such is not the fact seems to be sufficiently proved from the record of English university oarsmen, by which Dr. Morgan shows that the average life of old oarsmen is about three years longer than the average lives of other men. But assuming for the moment that strains may sometimes be produced, we maintain that it is a very simple matter to prevent them by such a graduated course of advance from light to heavy exercise, that the strength will always be in advance of the demands made upon it. This principle is now well understood on the foot-ball field, where men endure with impunity, exertions and hard knocks at the end of a season which would have disabled them at the beginning.

Second. Irresponsible undergraduate control is made one of the great bugbears of the opponents of college athletics. It is far from true that those in control of athletics in our colleges are irresponsible.

There is hardly a constituency in the world where the acts of the leaders are so freely discussed, or where they are held to such strict accountability. If objection be made that this accountability should be to the faculties and not to the students, there is a plain way out of the difficulty, which has been tried and found efficacious. I refer to the establishment of committees of graduates, whose experience can be called to the service of the captain of the year. Advice from men who have watched the course of college contests year by year, and who are somewhat removed from the eager, partisan feelings that actuate the conduct of undergraduates, is often of the very greatest benefit to college men in the conduct of their sports, and is the true remedy for many of the evils of which complaint is made. If you do not like college athletics, pray do not try to repress them by force, but endeavor to correct their objectionable features by the establishment of a conservative graduate influence in college athletic management. Do not make the mistake of trying to force undergraduates to be ruled by men in whom they have no confidence, who are known as opponents and recognized by the students as such, but select men in your faculties, or resident graduates, who have been on the nine or eleven or in the crew themselves, and who are known to take an interest in college athletics. There are many such men in every college faculty, and in every college town, men to whom the undergraduate will very soon learn to look with confidence when a difficult problem is presented for his decision.

Third. Disputes and wrangling about athletics, and newspaper discussions thereof, are mainly due to the fact that each captain is extremely tenacious of every point which he thinks may exert the smallest influence upon the final result in his own particular year. Consequently he often takes a position which he would not take, if during a series of years the chances were made even, so that the college which had an advantage one year would have a corresponding disadvantage the next. In other words, such disputes might often be obviated by more continuity in the management of college athletics, and this can be obtained by the establishment of graduate committees.

Fourth. The journey of several hundred men, sometimes many miles, during term time, to witness games at a rival college, is an evil. But it is one which any faculty can prevent by stringent regulations for the punishment of absence from college recitations at such times.

Fifth. The same may be said in regard to disorders attendant upon victories. The enthusiasm occasioned by a victory in an important college game after a close contest often leads men to go beyond all

bounds in their celebrations. Fires, fireworks and noise make the night a hideous nightmare to law-abiding citizens. But the prevention of such disturbances is not difficult. Let warning be given and then let offenders be carefully discovered and punished. Another plan has been tried, but seems more objectionable. If it be understood as one of the rules of the college that such disorders will cause the prohibition of athletic contests in the future, the college grounds will be deserted. After such an order had been given at Yale this spring, the campus was patrolled by students for the purpose of preventing such occurrences. It need hardly be said they were successful.

Sixth. I am prepared to defend games of base-ball between college and professional nines and the employment of professional trainers for the nine, the crew or the general athlete from the sentimental objections of the critics, but as my time is limited I shall content myself by classing this supposed evil as a preventable one. Professional trainers, at least, are seldom hired and it is probable no interest would suffer if their employment were absolutely prohibited. There is thus an easy remedy which those can apply who regard the evil as serious.

C. Let us now consider a few general objections.

First. From the character of some of the criticisms it would seem that many persons think there is an irrepressible conflict between physical and mental education, that every moment spent in the cultivation of the body is so much time deducted from the culture of the mind and consequently utterly wasted. The man who objects that "skill is exaggerated to the disparagement of learning," that athletics furnish "false ideals and unworthy motives," that "athletic distinction outranks scholastic," that athletics "distract men from college duties," is saturated with this idea and can see no possible good in athletics. In reality the two fields are distinct. There is no conflict between them. In the struggle for existence bodily strength is as necessary as mental. In the minds of the students there is no competition between athletic and scholastic rewards, for they are regarded as on two entirely different and non-competitive planes. To strive for excellence in athletics and to be proud of its attainment are by no means incompatible with a true estimate of the value of scholastic ability. Only a fool would compare athletic and scholarly attainments to the prejudice of the latter.

Second. The malignant, fantastic invectives that are heaped on college sports need no answer. Here are a few samples of this kind of criticism. They are an "appendage, a moral excrescence, designed to be intermitted;" they "increase the natural centrifugal force to fly

away from college authority, and also to barbarize their tastes and habits," they entail "evil influences upon society by increasing similar tastes and habits in the commoner classes."

Third. Objection is made to college athletics on the ground that they furnish the occasion for betting by the students. The vice itself should be attacked, not the occasion for its exercise, not the mere accident which discloses its existence. Those who bet on college races or games are almost exclusively men who have acquired the habit of betting, and who would bet on something else if they did not bet on their college. I have nothing to say in defense of the habit in college or out of it. I believe it to be one of the most demoralizing evils to which young men are tempted; but I maintain that there is no logical connection between athletics and betting. The only connection is one of propinquity. If you prohibit college games the betting will continue around the gaming table or with poker chips, and probably with far worse results.

Fourth. It is said that too much time, thought and zeal are wasted by the students in conversation and discussions about athletics, and that they encroach on the time that should be devoted to study. To this it may be replied that athletics are to the students a means of recreation, taking the place of the play of boys and the amusements of older men and women. No one can work all the time. The hours devoted to rest and amusement are as valuable as the hours of labor and as necessary for health and the proper enjoyment of life. We may again advance Professor Richards' theory, that athletics furnish a healthy topic of conversation, far less objectionable than the discussions which would take its place.

Fifth. Dr. Sargent objects to college athletics on the ground that while they may develop the physical man to a certain extent, they develop him in special directions with no symmetry of development, while the right kind of gymnastic work can be made to develop the physique equally well in all directions. He claims that gymnasts are diminishing in number and implies that athletics are to blame. While it may be true that symmetry of development is best, and that it can be best attained by gymnastic exercises intelligently pursued under competent instruction, still it can not be denied, indeed it is proved by Dr. Sargent's own figures, that athletic sports develop the physique to a very valuable degree. Work in the gymnasium is not interesting to college men, and they can not be induced to devote themselves to it, even if there be no athletics to compete with it. The prevalence of athletics, on the other hand, shows that they furnish a most valuable means of physical culture, on account of the very eagerness with which

men pursue them and the enthusiasm they arouse. College men are only boys and demand that there should be an element of sport in their physical education, and while there may be a somewhat more perfect way to develop their bodies, it is impracticable because they can not be induced to work in that way.

Sixth. It is true that college athletics are a source of considerable expense, but so is everything else in this world that is really worth anything. Considering the amount of money that is spent on our mental education, the comparatively trivial sums expended on college athletics, which do so much for the physical development of our young men, are by no means excessive. The recent increase in expenditures for athletics is merely on a par with the increase in wealth and expenses throughout the land. College sports are worth all they cost.

Seventh. It is said that men train who do not need it, the strong men naturally who would be as well without exercise. The root of this objection lies in the concealed premise that no one needs exercise, least of all the physically strong. The main argument for athletics is that physical exercise is a universal necessity both for the strong and the weak. Merely because the weak will not profit by it is no reason why it should be denied the strong.

Eighth. It is said that athletics absorb all the physical exertion of the students, that those who can not be members of one of the athletic organizations take no exercise at all, and that the very existence of a body of trained athletes discourages others from attempting any form of physical exertion. Dr. Sargent gives a gloomy picture of physical education where he says "not more than ten per cent give any attention whatever to physical exercise, and less than six per cent take it systematically as a means of culture and development," but in a note he adds: "The reader will understand that we are speaking of American colleges as a whole, and that the general interest in physical training among the students of Harvard, Yale and some other of our large eastern institutions is exceptional and not representative." If it be true that there is more interest in physical training in the colleges where college sports are most heartily sustained, there would seem to be no force in the objection that such sports discourage physical exercise. We have already noticed that in making his measurements Dr. Sargeant classes 600 Harvard students as athletes and 1,700 as non-athletic, making the athletes twenty-six per cent of all. Professor Richards says: "It would be putting the estimate too low to say that at least half of the undergraduate members of the academic and scientific departments" at Yale "get quite a regular amount of

systematic out-door exercise from, or in consequence of, the present system of college athletics."

Ninth. Foot-ball is a noble game, calling into exercise many of the best powers of mind and body. Yet it has been greatly prejudiced in the public estimation by the misrepresentations of the press several years ago when the rules of the game were imperfectly understood. The objections, stripped of all rhetoric and exaggeration, are that foot-ball is dangerous and brutal. To one who understands the rules of the game the apparent roughness disappears. There is no ground for the assertion that it is brutal. That accidents sometimes occur on the foot-ball field can not be denied, but the recent improvements in training, by which there is a gradual increase in the amount of hard work, and a preparation for harder work yet to come, by which the men accustom themselves to rolling on the ground and to hard knocks of all kinds, have greatly diminished the risk, while the invention of stuffed knee breeches renders much less frequent the serious injury to the knee which sometimes resulted several years ago. As to the fascination of the game any one can assure himself by a ten minutes talk with any member of one of the first-rate college elevens. Even small men who play to give the university team practice, and who are ignominiously thrown around by men thirty pounds heavier, declare that there is no game like it.

Dr. Sargent maintains that "in making excellence in achievement, the primary object of athletic exercises; we rob them of half their value in various ways." He then gives seven specifications in support of his proposition. They have all been well criticized by Professor Richards, and each one of the seven has been touched upon in this paper. The objection is a plea for mediocrity. If college athletics are worth anything, they are worth doing well. No man accomplishes much by doing anything to which he does not devote his whole effort. You prohibit college athletics, if you prevent the college athlete from doing his best.

V. The practical question here to-day is, what shall be our attitude toward athletics? Shall we do all we can to suppress and discourage them, or shall we recognize the good they are capable of doing and endeavor to make them a useful adjunct of school and college education? Of those who teach where such sports are not now established, I ask whether there are not evils in your institutions which would give way to the regime of athletics? And to those who are endeavoring to eradicate them, the serious question is "what will you put in their places?" *School boys* and *college boys* of larger growth must have some outlet for their superabundant vitality. It can not be penned up. If

you prevent the current from flowing in the channels, which in this age seem to be peculiarly adapted for it, what direction will it take? Even its enemies acknowledge that its present course is not wholly evil. If there be evils which seem to you vital, *endeavor in a sympathetic spirit to weed them out*, but I beseech you to carefully devise a system which will be better, which will remove the evils and at the same time preserve the benefits of college athletics, before they be ruthlessly interfered with. If you approach the subject in this spirit, I am confident of the result.

REMARKS OF PROFESSOR BENJ. IDE WHEELER, OF CORNELL UNIVERSITY.

MR. CHANCELLOR, AND GENTLEMEN OF THE CONVOCATION.—Allow me to express my gratification at the action of the executive committee in giving this important subject a place in the deliberations of your body. In the carefully prepared paper to which we have just listened, Mr. Bigelow, with great thoroughness of enumeration and candor of statement, has reviewed the question in all its main issues, as viewed by the student class and the world at large. It is natural for me to consider more especially some of the issues raised among those most immediately concerned with college government, or, in other words, to approach the subject from the faculty's point of view.

It is an undoubted fact that the institution of college athletics, as forming a part of the college life, and levying a stated claim upon the student's time and attention, finds either some degree of opposition, or, at least, lack of sympathy from a portion of the faculties of all our colleges. Some few are out of sympathy with the idea of college athletics entire. More object to *competitive* athletics; very many are distinctly opposed to *intercollegiate* competitive contests. It is of first importance in the consideration of this matter that we discriminate carefully between a criticism of all college recognition of gymnastic exercises, an opposition to the practice of competitions, and an aversion to the institution of competitions between college representatives.

Whatever opposition manifests itself under the first head assumes, I believe, largely the form of minor criticism and defective sympathy, and is chiefly characteristic of older men, who graduated from our colleges in the days when city life and the push and strain of artificial civilization had not yet given to nervous prostration and its kindred a recognized rôle in the career of men of books.

Cultivation of intellect was the prime purpose of our early college foundations. Are not the institution of gymnasiums, the appointment of gymnasiarchs, and the modern concessions from study hours to sports, at variance with the purpose and out of harmony

with the scheme of university life? Why not let the physical exercises take care of themselves? Need the college take cognizance of them?

If there were known to be such a thing as full development of mental capability, independent of physical health, the college might be relieved of all responsibility. In the light of the facts, I believe it to be distinctly and solemnly responsible.

The modern psychological theories now-a-days advanced with such force in support of education through manual training go farther and assert even for physical training a part and portion of all schemes of intellectual training.

But, apart from such theories, if the fullest effectiveness of intellectual capacity demands the support of a rounded, harmonious physical development and physical health, it claims for its purpose the intervention of the central authority of the college and the employment of professional guidance and oversight. The object of physical culture as a department of the college is the development of an accord between physical and mental health. The institution of college athletics aims ultimately at training, not fun.

It is a misfortune for a man to enter life with a highly developed muscular system, and a weak chest to support it. Professional advice must intervene to aid in equalizing such dangerous discrepancies.

The statistics of the department of physical culture at Cornell show that boys from the farm are not maintaining their boasted preëminence in regard to physical development. They are generally found to be inharmoniously developed; the chest does not match the arm, or the arm the back. The larger proportion of our most successful general athletes comes from the towns. The more equable development as well as the greater alertness of mind and completer subordination of muscular capacity to will control are responsible for this.

The times are passed, if they ever were, when men can maintain their highest place in life by mere force of intellect. It is personality that leads and controls. Soundness of judgment, or common sense, is rarely consorted with feebleness and dyspepsia. The effectiveness of the teacher, the moving power of the orator, and the forceful control of a great leader are referable to personality—the whole of physique, soul and reason, and not to any one of them. I am conscious of my heterodoxy, but the ball-field is not so bad a place from which to choose a teacher for your school.

There are many who would assent to the substance of what I have just said, but who dissent from the whole idea of competition as a means of stimulating interest in athletic exercises. Ought not the

glow of enthusiasm for the high ideal of athletic exercises, viz., harmonious development, to be sufficient stimulus for every purpose, and sweeten all the bitterness and enliven all the monotony of toiling at the chest weights and pumping at the dumb-bells? It is customary to wish human nature better than it is, it is sufficient for our purpose to consider it as it is. All finest human effort is a race.

The tendency for all games, under the influence of competition to develop a constantly rising standard of skill, and so to rise beyond reach of the mass and become the property of the few athletic specialists is unmistakable. It has been made the commonest ground of criticism against competitive athletics in their relation to general physical culture. It is an absolutely false argument of criticism. Nothing tends more to stimulate interest in physical exercises and call attention to the demands of the physique than the exhibition of physical prowess and skill, especially when actor and audience belong to the same class in life, as is the case with college students. The athletic specialists of our colleges set a standard of athletic attainment; they do not monopolize the athletic activity. There is not even any single class of sports which they monopolize.

The statistics recently presented in the admirable report of the Harvard "committee appointed to consider the subject of college athletics" (submitted June 12, 1888), offer convincing proof in this particular. The number of the different students composing the University and Freshman crews, base-ball nines, and foot-ball and lacrosse teams was, in 1886-7, 117. This fairly represents the number of the leading athletes, or the "athletic specialists" of the college; and yet, out of a total of 1,081 students, 301 report that they frequently play base-ball, 135 that they play foot-ball, 51 lacrosse, and 179 that they practice rowing. Under the stimulus of the competitions in these sports, others are continually being added to the list. Thus, within very recent years, tennis has come to the fore; 598 students play it, 39 play cricket, 89 get exercise from bicycling, 22 from canoeing, 93 from riding, 111 from running, 66 from sparring, etc.; and, in fact, only 16 men report that they take no systematic exercise whatever. Surely, this does not look as if the practice of competition operates to *limit* the number of participants in athletic sports.

There is a bit of grim humor in the showing of the statistics, that while the average scholarship of the University nine is seventy-four per cent; of the athletic team, seventy-two per cent; and of the crew, sixty-nine per cent; that of the men taking no exercise is sixty-seven per cent. I might mention here in passing, that statistics in regard to the scholarship of Cornell athletes from the years 1874-87, show a reasonable accord with the Harvard figures. The average of the

rowing men is seventy per cent; of the base-ball men, seventy-three per cent; of the athletic teams, seventy-six per cent.*

The question of the propriety of *intercollegiate* competitions is, I confess, a matter by itself. It is a question of degree. Excesses have been committed, and regulation is necessary; but excesses are not universal. We are not, for instance, troubled at Cornell with any undue demands from our students in this direction. That the excesses at other colleges, like Harvard, where the intercollegiate contests necessarily play a larger part, have probably been overestimated, the recently published Harvard statistics show. While only six students (outside of the teams) have attended as many as five intercollegiate contests outside of Cambridge during the year, 254 have attended only one, and 560 have attended none at all.

The commonest form of protest against these contests between colleges is the criticism upon the inane enthusiasm developed in connection with them. The absurdity of having a posse of young devotees of science travel off to a neighboring city to jump and yell in honor of the college of their choice!

These college contests undoubtedly engender "college spirit" and if "college spirit" is an evil they are in a considerable degree responsible for it. The cool rationalist, who would order life by the clean cut of his scientific processes is persuaded that college spirit is a stumbling block. "Let the young scholar learn to love his science, not the institution that introduces him to it." Are our colleges to-day convicted of producing too much enthusiasm, too much ardor, too much devotion? Has the world tired of men of enthusiasm? Have "indifferents" yet become leaders of men?

I for myself have no reason to believe that love and enthusiasm for one's own college is other than a broadening and elevating emotion. I believe it is a good thing to have loved, to have loved one's mother, one's friend, one's home and one's college. I love my college; I am thankful that I am enthusiastic in her love. It involves no intellectual discrimination against *your* college, you may love that and do well to.

That the recent rapid, even sudden development of athletics in the college should have attracted the attention of criticism is natural, but the need and the opportunity, as well as the appreciation of the need have come upon us in some sense suddenly. There are undoubtedly abuses that need correction and excesses that invite restraint, but, taken on the whole, the modern development of college athletics is so natural and so timely, that he who believes in education as training of the man can at this present day only say "God speed?"

*H. C. Beauchamp. Results of Athletics at Cornell. Cornell Magazine, June, 1888, pp. 83, ff.

XI.

The Federal Convention of 1787.

By Professor E. BENJAMIN ANDREWS, of Cornell University.

One hundred and one years ago at this time there was in session at Philadelphia, an assembly whose deeds and whose fame promise to live longer than those of any other known to our history. It was the Federal Convention, which drafted our present Constitution.

Every one knows the grand story of the Revolution, and the sad story of the disgraceful anarchy that followed; when there was practically no general government with which foreign nations could treat; England still clinging to the western posts, contrary to the treaty of peace, with no power anywhere on this side to do more than protest; the debt of the Confederacy steadily piling up its unpaid interest; the land flooded with irredeemable paper money, State and national; Shays' Rebellion defying the State government in several counties of Western Massachusetts, the Confederacy's laws and Constitution ignored or trampled upon everywhere, and the arrogance and self-seeking of the several States surpassing everything but their own contemptible weakness.

The chief immediate distress was from the wretchedness of our commercial relations, whether foreign or between the States at home. If our fathers would be independent, King and Parliament were determined to make them pay dearly for the privilege. Accordingly, tariffs were laid upon all our exports to Great Britain; and, what was much harder to bear, an order of the King in council, July 2, 1783, utterly forbade American ships to engage in that British West India trade which had always been a chief source of our wealth. The sole remedy for these abuses in dealing with England at that time was retaliation; but Congress had no authority to take retaliatory steps, while the separate States could not or would not act sufficiently in harmony to do so. If one imposed customs-duties, another would open wide its ports, filling the markets of the first with British goods by overland trade, so that the customs law of the first availed nothing. If Pennsylvania and New York laid tariffs on foreign commodities, New

Jersey and Connecticut people, in buying imported articles from Philadelphia or New York, were paying taxes to those greater States. North Carolina was in the same manner a forced tributary to South Carolina and Virginia, as were portions of Connecticut and Massachusetts to Rhode Island. There was no way to correct these evils but to form a far stronger central government than the old had been or could be made.

Such solid government had been suggested by many, but for the most part without scheme for its realization. Schemes indeed there had been. A proposition for a convention of the States to reform the Confederacy passed the New York Legislature in July, 1782, under the influence of Alexander Hamilton; another passed that of Massachusetts, July, 1785, urged by Governor Bowdoin; but because of too great love for State independence and too little appreciation, as yet, of the serious nature of the crisis, both motions failed of effect.

The idea of reform which found most favor, the only one which at first had any chance of getting itself realized, was that of giving Congress simply the additional power of regulating commerce. Even so moderate a proposal as this found many enemies, especially in the South, where men like Richard Henry Lee saw that such a measure would enable the Northern States, more interested in ocean carrying, by getting through Congress a Navigation Act, like England's, to secure to themselves a monopoly over Southern commerce, foreign and coastwise.

Greatly to her credit as a Southern State, the purpose of amending the Articles of Confederation in the direction indicated, so as to invest Congress with the necessary power to regulate commerce, was first taken up in earnest by Virginia. The Legislature of that State, soon after opening session in October, 1785, listened to memorials from Norfolk, Suffolk, Portsmouth and Alexandria upon the gloomy prospects of American trade, which led to a general debate upon the subject. In this debate Mr. Madison, by a speech far exceeding in ability any other that was made, began that extended and memorable career of effort for enlarged functions in our central government, which has earned him the title of the Father of the Constitution.*

The result of this discussion was a bill directing the Virginia delegation in Congress to propose an amendment to the Constitution, giving to Congress that additional power. The enemies of the bill, however, succeeded in so modifying it, by limiting the proposed grant of power to a period of thirteen years, that Madison and its other abettors turned against it and voted to lay it on the table.

* 2 Rives' Madison, 49 seq.

There was in existence at this very time a joint commission, representing Virginia and Maryland, which had been raised for the purpose of determining what jurisdiction each of the two States had over the Potomac and in Chesapeake bay. Madison was one of the Virginia commissioners. A meeting had been held in March, 1785, at which the commissioners agreed in their report to transcend their instructions and to recommend to the two States uniform monetary and commercial regulations entire, including common export and import duties. They thus reported, adding the still further recommendation, that commissioners to work out the details of such a plan be appointed each year till it should be completed. The Maryland Legislature adopted the report, adding the proposition that Delaware and Pennsylvania also should be invited to enter the system and to send commissioners.

When the commissioners' report, with Maryland's action thereon, came before the Virginia Legislature, Madison moved, as a substitute for the mutilated bill which had been tabled previously, that the invitation to take part in the commission go to *all* the States. The motion passed by a large majority.

Thus originated the Annapolis Convention of 1786. Nine States appointed delegates; all but Connecticut, Maryland and the two Carolinas; but of the nine, only Virginia, Delaware, Pennsylvania, New Jersey and New York actually sent them. *I. e.*, New England and the extreme South were not represented at all, the convention being an affair of the Middle States alone. After mature deliberation, as the powers granted the commissioners presupposed a deputation from each of the States, those present deemed it inadvisable to proceed, drawing up instead an urgent address to the States to take "speedy measures" for another, fuller convention to meet on the second Monday of May, 1787, for the same purposes as had occasioned this one, and for such other purposes "as the condition of public affairs might be found to require," or "as shall appear necessary to render the Constitution of the Federal government adequate to the exigencies of the Union." This was the way in which the Federal Convention came about.

Documents relating to the proceedings of this convention are somewhat numerous.

First, we have its official minutes, kept by Mr. William Jackson, the regularly elected secretary, and deposited by President Washington in the Department of State on March 19, 1796. These minutes are, of course, very brief. They register the days and hours to which adjournments were had — the hour usually 10, but sometimes 11, A. M.—

motions made and seconded, by whom, and whether passed or lost, and the names and reports of committees; but they reproduce no debates, and are therefore cold and colorless. At the end they are also incomplete. It would seem that Major Jackson waxed listless as the months drew on. Thus we find him referring to the very important committee of detail, not by this title, as was certainly usual in the convention, but by naming its members over and over, so that the reader is led to think he has to do with a new committee each time it is mentioned, when in fact it is one and the same. Worse than this, Jackson cut short in the middle of a sentence the record of Saturday, September 15, leaving the words: "It was moved and seconded to—" standing alone, till they were supplemented by Madison many years afterwards, at the request of President Monroe. All the minutes for that day, as well as those for Monday, the seventeenth, the closing day of the convention, were added by Madison. Secretary Jackson also sometimes misspelled. He writes "Johnston" for "Johnson," and "Houston" for "Houstoun," of Georgia. He also spells with one "l" the name of the New Hampshire delegate, Gillman, to which Madison always gives a double "l." Whether he or Madison is correct I can not say with certainty.

Hon. Robert Yates, one of the New York delegates, also kept a considerably full report of the convention proceedings, till his retirement from them on July fifth. This has been published and is of value. Less full of routine details than the official minutes, his notes are richer far as an exhibition of the debates.

Quite a number of the deputies, as Yates and Lansing, Randolph, Mason, Gerry, Sherman and Ellsworth, Gouverneur Morris and Madison, wrote letters upon arriving home, explaining, praising or assailing the doings of the convention; and from these again we derive much priceless information. The fullest and most instructive of these is that of Luther Martin, of Maryland. It is almost a history of the convention, derogatory, severe, unfair, but pointed and comprehensive. With these documents we may rank the *Federalist*, and the utterances of the framers in the ratifying conventions of the different States.

But far the most valuable single source of our knowledge in relation to the convention is the famous journal of it, kept by James Madison, one of its most important and renowned members.

Mr. Madison says: "The curiosity I had felt during my researches into the history of the most distinguished Confederacies, particularly those of antiquity, and the deficiency I found in the means of satisfying it, more especially in what related to the process, the principles,

the reasons and the anticipations, which prevailed in the formation of them, determined me to preserve, as far as I could, an exact account of what might pass in the convention whilst executing its trust ; with the magnitude of which I was duly impressed, as I was by the gratification promised to future curiosity by an authentic exhibition of the objects, the opinions and the reasonings, from which the new system of government was to receive its peculiar structure and organization. Nor was I unaware of the value of such a contribution to the fund of materials for the history of a constitution on which would be staked the happiness of a people great even in its infancy, and possibly the cause of liberty throughout the world."

"In pursuance of the task I had assumed," he continues, "I chose a seat in front of the presiding member, with the other members on my right and left hands. In this favorable position for hearing all that passed, I noted, in terms legible, and in abbreviations and marks intelligible, to myself, what was read from the chair or spoken by the members; and losing not a moment unnecessarily between the adjournment and reassembling of the convention, I was enabled to write out my daily notes during the sessions or within a few finishing days after its close, in the extent and form preserved in my own hands on my files."

"In the labor and correctness of this," he adds, "I was not a little aided by practice, and by a familiarity with the style and the train of observation and reasoning which characterized the principal speakers. It happened, also, that I was not absent a single day, nor more than a casual fraction of an hour in any day, so that I could not have lost a single speech, unless a very short one."

Such was the origin of this wonderful and precious journal; let us now look into it, and see if we can get some notion of its contents.

The second Monday of May, which should have witnessed the opening, was the fourteenth, but on that day too few deputies had assembled. So late as the twenty-fifth only nine States were represented, two of these, Georgia and Massachusetts, by but a single deputy each. However, they effected an organization on that day, chose president and secretary, and appointed a committee to prepare rules for the transaction of business.

On the twenty-eighth of May, Maryland and Connecticut having arrived, eleven States were present, and business began in earnest; although not the main business indeed, till the twenty-ninth, when Governor Randolph read and expounded the Virginia plan for a new government, and Charles Pinckney the South Carolina plan, both of which were referred to a committee of the whole, to sit next day.

This Virginia plan was substantially the work of Madison. He had outlined it in an indefinite way so early as March 19, 1787, in a letter to Jefferson, in Paris. He had written in like strain but more definitely to Governor Randolph the next April eighth, and to Washington, April sixteenth. Madison was no doubt right in supposing the notes given in this correspondence to have been "the earliest sketch on paper, of a constitutional government for the Union, organized into the regular departments, with physical means operating on individuals, to be sanctioned by the *people of the States*, acting in their original and sovereign character." *

"On the arrival of the Virginia deputies at Philadelphia, it occurred to them that, from the early and prominent part taken by that State in bringing about the convention, some initiative step might be expected from them,"† and, upon conference, the views which Madison had penned in March and April were put in form, agreed to as a tentative scheme, and ordered to be presented by Randolph.

The Pinckney skeleton, now known to have been far more meager than the form of it which appears in the first volume of Elliott's Debates, was, however, also taken into consideration. These two plans of government were debated, amended and worked over in committee of the whole, until the thirteenth of June, on which day the committee rose and reported to the convention a series of nineteen resolutions, based in the main upon those presented by Mr. Randolph. These nineteen resolutions, the text for all the convention's doings from this time on, may be called the modified Virginia or Madison plan.

On June fifteen, Patterson brought forward the New Jersey plan, as it was called, the gist of which was that it recurred to the foolish idea of merely repairing the confederation that then was, instead of erecting a government entirely new in kind, with centralized sovereignty. The Patterson propositions were considered in committee of the whole till June nineteenth, when the committee rose and reported upon them adversely, once more recommending the nineteen resolutions that had grown out of the Virginia or Madison plan.

The substance of these nineteen resolutions was that: There should be a national government, with supreme legislative, judiciary and executive; that the Legislature should consist of two branches, members of both to be salaried by the general government, both to be proportioned to population, and to have the right of originating acts; one, called the first, to be elected by the people of the several

* 2 Rives' Madison, 255; 5 Elliott's Debates, 107.

† 5 Elliott, 121.

States, and to serve three years; the other by the Legislatures, to serve seven years; that the national executive was to consist of a single person, chosen by the national Legislature, to serve seven years, and to have veto on legislative acts; that the judiciary was to cognize revenue cases, impeachments of national officers, and questions involving "the national peace and harmony." The Legislature, not the court, was to have the power of vetoing State legislation, and the expressions, "President," "Congress," "Senate" and "House of Representatives," do not occur in the resolutions.

After June nineteenth, the convention did not again use the committee of the whole, but, as occasion demanded, referred portions of the nineteen resolutions to grand committees, each consisting of one member apiece from the several States, or to smaller and more select committees of five each.

On July twenty-fourth and twenty-sixth, the resolutions, now increased in number to twenty-three, accompanied by the Pinckney and the Patterson schemes, were placed in the hands of a committee of detail, with instructions to put the matter that had been agreed to in the form of a Constitution. Accordingly, a formal Constitution was reported on August sixth, and it, from this time on, was the basis of discussion and amendment.

This draft contains twenty-three articles, and is considerably more extensive than the Constitution finally adopted. It discards the word "national," so usual in the nineteen resolutions, speaks of a "President of the United States," also of "Congress," "House of Representatives" and "Senate," yet still retains the phrase "Legislature of the United States," as an alternative title for Congress. Much other progress has by this time been made, the great charter on which they were at work, having in a majority of its sections assumed its present form. The term of service in the House has been fixed at two years, and that in the Senate at six. The provision that money bills must originate in the House has been agreed upon, and it has been settled, after fierce controversy which all but rent the convention, that each State is to have two Senators, both with a vote. The three-fifths rule for representation and direct taxes has also been fixed.

The chief features of this draft which were blotted out subsequently and do not appear in our Constitution are these:

1. The President is to be elected by Congress, to be officially styled "His Excellency," to hold office seven years, and be ineligible thereafter.
2. The national Treasurer is likewise to be elected by Congress.
3. The same cumbrous court machinery for adjudicating controversies between States, found in the Articles of Confederation, reappears.

here, the initiative in forming the court, devolving here, however, upon the Senate instead of on Congress as a whole, as in the articles.

4. The Senate has the further powers, apart from the President, of making treaties and appointing ambassadors and judges of the Supreme Court.

5. Supreme Court instead of Senate is to try impeachment cases; but Congress may delegate to lower courts, this and all the jurisdiction of the Supreme Court, save only the trial of the impeachment of a President.

6. States are not absolutely inhibited from issuing credit bills and making other things than gold and silver legal tender; but must have the permission of Congress for such acts.

7. Congress has no initiative in procuring amendments to the Constitution; which can originate only in the application of two-thirds of the State Legislatures for "a convention."

On September eighth, a new committee was raised, to revise the style and arrangement of the maturing instrument, and this committee brought in its work September thirteenth. There were additions and changes after this, the Constitution not receiving signature till September seventeenth.

The total number of delegates to the Federal Convention was sixty-five. Ten never attended. Fifty-five, therefore, properly constituted the body, viz.: From Pennsylvania, eight; from Virginia, seven; from New Jersey, Delaware, Maryland and North Carolina, five each; from Massachusetts, South Carolina and Georgia, four each; from Connecticut and New York, three each; and two from New Hampshire. But they were at no time all present together. Blount, of North Carolina, only arrived on June twentieth; Dayton, of New Jersey, on June twenty-first; Carroll, of Maryland, July ninth; Langdon and Gillman, of New Hampshire, not till July twenty-third; Mercer, of Maryland, so late as August sixth.

By this time Dr. McClurg, of Virginia, was called home. Colonel Hamilton, of New York, was absent from June twenty-ninth till August thirteenth. Franklin, aged eighty-one, the oldest member, as Gillman, of New Hampshire, twenty-five years, was the youngest, was in poor health and necessarily absent many days. Gouverneur Morris, of Pennsylvania, after the first few sessions, was away till July second. Three days later, July fifth, Yates and Lansing, of New York, deserted the convention, not to return, New York being unrepresented from this date till Hamilton's reappearance, August thirteenth.

Mr. Madison felt it his duty to write down his "profound and solemn conviction, derived from intimate opportunity of observing

and appreciating the views of this convention, collectively and individually, that there never was an assembly of men, charged with a great and arduous trust, who were more pure in their motives, or more exclusively or anxiously devoted to the object committed to them." Subsequent years and subsequent students have ratified this judgment. Nor was their ability behind their integrity. "In comparing the Constitution of the United States with the anarchy from which it sprung," says Mr. Guizot, "we can not too much admire the wisdom of its framers." We have also, from Mr. Gladstone, the following remarkable words: "As the British Constitution is the most subtle organism which has proceeded from the womb and the long gestation of time, so the American Constitution is, so far as I can see, the most wonderful work ever struck off at a given time by the brain and purpose of man. It has had a century of trial, under the pressure of exigencies caused by an expansion unexampled in point of rapidity and range; and its exemption from formal change, though not entire, has certainly proved the sagacity of the constructors, and the stubborn strength of the fabric."

It is doubtful if there has been a single year of the hundred that have sped since then, when, I will not say this country, but when any country on earth could have gotten together a body of fifty-five men in all respects the peer of this for such a work. Certainly the Versailles Assembly two years later, which gave France a constitution, although with 1,145 deputies, had not like wisdom; nor had the next most famous constituent assembly of the century, that which gathered in St. Paul's church, at Frankfort-on-the-Main, May 18, 1848, in the vain hope of then bringing about a united Germany.

Each State sending to Philadelphia its best available talent, the convention was made up of the foremost figures then in American political life. The chief exceptions were John Adams and Thomas Jefferson, both abroad at the time, Sam Adams, who was understood not to favor the convention, Jay, secretary for foreign affairs to the Confederacy, and Patrick Henry, who, for all his eloquence and patriotism, we now know to have been too whimsical for a great statesman.

Eight of them, Gerry of Massachusetts, Sherman of Connecticut, Robert Morris, Franklin, Clymer and Wilson of Pennsylvania, Read of Delaware, and Wythe of Virginia, had signed the Declaration of Independence. The same Gerry, Sherman and Robert Morris, with Dickinson of Delaware, Gouverneur Morris, then of New York, and Daniel Carroll of Maryland, six in all, had subscribed the Articles of Confederation. Seven of the number, Read, Dickinson and Bassett of Delaware, Randolph and Madison of Virginia, Hamilton of New York,

and Houston of New Jersey, had put their hands to the Annapolis appeal of 1786. Franklin was the most noted man then alive. Washington, Hamilton, Charles Cotesworth Pinckney, Mifflin, Alexander Martin, Davie and Mercer had been more or less distinguished as military leaders in the Revolution. Franklin of Pennsylvania, also Dickinson, once of that commonwealth, Langdon of New Hampshire, Livingston of New Jersey, Randolph of Virginia, Alex. Martin of North Carolina, and Rutledge of South Carolina, all were or had been chief magistrates of their respective States. Johnson, Sherman, and Ellsworth of Connecticut, being the entire delegation from that State, were judges of its Superior Court; Blair and Wythe were on the Chancery Bench of Virginia; Brearly was chief justice of New Jersey; Luther Martin, attorney-general of Maryland; an office which Read had already held twelve years in Delaware. Forty of the fifty-five members of the convention had been in Congress, including the entire delegation of New Hampshire, of Connecticut, of New York, of Maryland, and of Georgia: very many, like Madison, Langdon, Gillman, Hamilton, Yates and Lansing, coming to Philadelphia fresh from Congress, which had just adjourned in New York city.

It is interesting to mark how high many from this constituent assembly rose after the adoption of the Constitution which they had created. Washington and Madison became Presidents, Gerry, Vice-President, Langdon, Senator and President of the Senate, with duty officially to notify him who was already First in War, that the Nation had made him also First in Peace. Langdon was candidate for Vice-President in 1808. Randolph was the earliest United States Attorney-General, Hamilton earliest Secretary of the Treasury, M'Henry second Secretary of War, succeeding General Knox. Dayton was a Representative from New Jersey in the Second, Third, Fourth, and Fifth Congresses, being Speaker during the last; then Senator in the Sixth, Seventh, and Eighth. Ellsworth and Johnson were Connecticut's first pair of Senators, Johnson passing in '91 to the presidency of Columbia College, New York, Ellsworth to the National Chief Justiceship, to succeed Jay. Rutledge was one of the first Associate Justices of the Supreme Court. Subsequently, in July, 1795, Washington nominated him for Chief Justice, and he actually presided over the Supreme Court, at its term in that year; but for his ill-mannered denunciation of Jay's Treaty,* the Senate declined to confirm him. Wilson and Patterson also each held the position of Associate Justice on the Supreme Bench of the nation.

*1 Schouler's U. S., 296.

Rufus King, after the adoption of the Constitution, removed to New York. He was a Senator from that State between 1789 and 1795, and again between 1813 and 1826; and Minister to England from 1796 to 1803, and again after 1826, till his failing health compelled his resignation. He was the Federalist candidate for Vice-President in 1804 and 1808, and for President in 1816.

Sherman of Connecticut, Gillman of New Hampshire and Baldwin of Georgia, went into the House of Representatives and were promoted thence to the Senate. Robert Morris of Pennsylvania, Gouverneur Morris, now again of New York, Caleb Strong of Massachusetts, Patterson of New Jersey, Dickinson and Bassett of Delaware, Alex. Martin and Blount of North Carolina, Charles Pinckney and Butler of South Carolina, and Colonel Few of Georgia, all became Senators. Madison, Gerry, Fitzsimmons of Pennsylvania, Carroll of Maryland, and Spaight and Williamson of North Carolina, all wrought well in the House, but did not reach the Senate.

Charles Cotesworth Pinckney was nominated for the presidency in 1800, on the ticket with John Adams,* and again in 1804 and 1808. Jared Ingersoll was the Federalist candidate for Vice-President in 1812, on the ticket with DeWitt Clinton, against Madison and Gerry.

Yates rose to be Chief Justice of the State of New York, Lansing to be its Chancellor. Gerry and Strong of Massachusetts, Patterson of New Jersey, Bassett of Delaware, Spaight and Davie of North Carolina, and Charles Pinckney of South Carolina, became Governors of their States; as did Alex. Martin of North Carolina, again.

However, let us not suppose that all the men of this Federal Convention were geniuses, or that they were equal contributors to the sublime result. Messrs. Bassett, Blair, Blount, Few, Gillman, Ingersoll and Yates did not open their mouths from the beginning to the end of the debates;† Houstoun of Georgia, McClurg and Mifflin but two or three times, and Judge Wythe was silent from the moment he concluded his report as chairman of the Committee on Rules of Order. The reticence of some of these could not have been due to incompetence, for Ingersoll, Blair and Wythe, at least, were capable lawyers. Also, of Baldwin, Bedford, Clymer, Davie, Fitzsimmons, Jenifer, Pierce, Alex. Martin and Spaight, the words were very few, although, as we have seen, several of these gentlemen afterward attained eminent station.

* It was Thomas Pinckney who ran with Adams in '96.

† Blount and Ingersoll each made a few remarks at the very end of the convention, not, however, relating to the Constitution, but to minor matters of detail.

As the committees were all elected by ballot, their composition affords much light as to the estimate placed upon its members by the convention itself. Of the committee of the whole house, which sat nearly or quite every session-day till July nineteenth, Gorham, of Massachusetts, was each time chairman, elected, apparently, once for all, for this service. The committee to prepare the rules of order comprised Wythe of Virginia, Hamilton of New York, and Charles Pinckney of South Carolina. The first grand committee, July second, comprised Gerry of Massachusetts, Ellsworth of Connecticut, Yates of New York, Patterson of New Jersey, Franklin of Pennsylvania, Bedford of Delaware, Luther Martin of Maryland, Mason of Virginia, Davie of North Carolina, Rutledge of South Carolina, and Baldwin of Georgia.

This was the committee which first reported the renowned "Connecticut compromise," so called because originating with Mr. Ellsworth, giving the States equal representation in the Senate, but proportioning the House to population. Gerry made the report.

The convention, being dissatisfied, raised, on July sixth, a special committee of five—the first such committee noticed in the journal—to canvass this vexing matter more fully. Gouverneur Morris of Pennsylvania, Gorham and King of Massachusetts, Randolph of Virginia, and Rutledge, of South Carolina, formed this committee—two, notice, from Massachusetts. Gouverneur Morris made this committee's first report, King its second.

On July ninth another grand committee was elected, to report upon the proper apportionment of representatives among the States for the first Congress; and King, Sherman, Yates, Brearly, Gouverneur Morris, Read, Carroll, Madison, Williamson, Rutledge and Houstoun were its members.

July twenty-fourth saw created the committee of detail, the most important of all, to put the Constitution in form. On this were Rutledge, Randolph, Gorham, Ellsworth and Wilson.

The grand committee of August eighteenth, to consider the necessity and expediency of the assumption of State debts by the United States, was composed of Langdon, King, Sherman, Livingston, Clymer, Dickinson, M'Henry, Mason, Williamson, C. C. Pinckney and Baldwin; that of August twenty-second, on the importation of slaves, of Langdon, King, Johnson, Livingston, Clymer, Dickinson, Luther Martin, Madison, Wilson, C. C. Pinckney and Baldwin; that of August twenty-fifth, on ports of entry, entrance and clearance, equality of duties in the several States, etc., of Langdon, Gorham, Sherman, Dayton, Fitzsimmons, Read, Carroll, Mason, Williamson, Butler and Few; that of August thirty-first, on deferred reports and

parts of the Constitution, of Gillman, King, Sherman, Brearly, Gouverneur Morris, Dickinson, Carroll, Madison, Williamson, Butler and Baldwin.

Finally, the committee on style and arrangement, appointed September eighth, embraced Johnson of Connecticut, Hamilton of New York, Gouverneur Morris of Pennsylvania, Madison of Virginia, and King of Massachusetts. To sum up: Rufus King, and only he, was on six different committees, two more than any other man. Rutledge, Baldwin, Sherman, Gouverneur Morris, Madison and Williamson, on four each; Langdon, Gorham, Mason, Carroll and Dickinson, on three each; Ellsworth, Livingston, Yates, Luther Martin, Brearly, Read, Clymer, C. C. Pinckney, Johnson, Wilson, Butler, Hamilton and Randolph on two each; Gerry, Patterson, Franklin, Davie, Houstoun, M'Henry, Dayton, Fitzsimmons, Few, Gillman, Wythe and Charles Pinckney on one each. Strong, Lansing, Houston, Mifflin, Robert Morris, Ingersoll, Bassett, Broom, Jenifer, Mercer, Washington, Blair, McClurg, Alex. Martin, Blount, Spaight and Pierce were not on any committees at all except Committee of the Whole.

If we look at the small committees alone, which, of course, are the best test, as for them there was no limit in range of choice, Gorham, Rutledge, King, Gouverneur Morris, Hamilton and Randolph each served on two out of the four; Ellsworth, Madison, Johnson, Wilson, Wythe and Charles Pinckney on one apiece.

Nor must we imagine that all the framers were saints.

Yates and Lansing of New York, Luther Martin of Maryland, and in a less degree George Mason of Virginia, were the especially recalcitrant parties, dissatisfied with nearly all that the convention did, and opposing tooth and nail the ratification of its work by their several States. Gerry and Charles Pinckney, "Mr. Pinckney," as Madison always denominates him in distinction from Charles Cotesworth, or "General," Pinckney, were the pulmonary heroes of the convention. King, Sherman, Patterson and Brearly were its great lawyers; Johnson, Madison, Dickinson, Wilson, Franklin and Gouverneur Morris its most erudite scholars; Washington, Robert Morris, Langdon, Gorham, Strong, Rutledge, General Pinckney, Mercer, Dayton and Williamson its men of the most profound practical sagacity. Washington, Franklin and Dickinson were preëminently the sages of the convention; and with the same preëminence Alexander Hamilton, James Wilson and James Madison were its Titans, which term I mean shall connote genius, information and Herculean toil.

Beautiful was the intercourse of Washington and Franklin, the man of the camp with the man of the cabinet, in these autumnal days

of the latter's life. Washington, who had traveled from Mount Vernon in his private conveyance, and been five days on the way, made it his first business in Philadelphia to call upon the aged philosopher. Dr. Franklin, whom, had there been no Washington, all would have urged for presiding officer, was himself intending to nominate Washington for that honor, had not the state of the weather and of his health confined him to his house. As it was, the nomination was made by Robert Morris, whose abounding hospitality Washington enjoyed during his entire stay in Philadelphia. Rutledge seconded the nomination, expressing his confidence that the choice would be unanimous, and remarking that the presence of General Washington forbade any of those observations on the occasion which might otherwise be so proper. The election, though by ballot, was indeed unanimous, and Messrs. Morris and Rutledge conducted the general to his chair.

On Saturday, June 2, in Committee of the Whole, the question of the President's salary being under debate, Franklin, in the course of a not otherwise impressive argument against any salary at all, made this elegant allusion to Washington:

"To bring the matter nearer home, have we not seen the greatest and most important of our offices, that of general of our armies, executed for eight years together, without the smallest salary, by a patriot whom I will not now offend by any other praise, and this through fatigues and distresses, in common with the other brave men his military friends and companions, and the constant anxieties peculiar to his station?"

I am reluctant to turn from these two towering figures, and could not bear to do so were not the literature upon them so ample and accessible. Worthy of name along with them is John Dickinson, first of Pennsylvania, then of Delaware — "John Dickinson, who, whether regard be had to his learning and eloquence, to his genuine love of country, to his spotless purity and dignity of character, or to the masterly productions of his pen in defense of American rights, must ever stand in the foremost rank of the patriots and statesmen of the New World."*

Mr. Dickinson, you may remember, lost popularity for a time by non-concurrence in the Declaration of Independence. He clung to England. To humor him the last address of Congress to King George, in 1775, was tempered with a submissiveness which offended many. On its being read, he remarked that but one word in it displeased him, the word "Congress;" to which Colonel Benjamin Harrison, of Virginia,

* 2 Rives, 300.

retorted that but one word in it pleased him and that that word was precisely, "Congress." Yet, independence being once declared, no man sustained it more cordially, constantly or energetically than Dickinson, who thus speedily regained and even increased his favor with the patriotic public. As he had indited the Articles of Confederation he was admirably prepared for the work which the convention had in hand. He entered deeply into its debates, always with keen and sagacious observations. Nearly all those salient features of the Constitution which have made it specially serviceable, found him their advocate, while several of its unfortunate omissions, as that of exact definition touching the presidential succession in case of death or disability — rectified* only during the last Congress — were clearly pointed out by him.

Alexander Hamilton, the scholar, soldier, jurist, legislator, political economist and statesman, I shall pass with Guizot's so truthful remark, that "in the Constitution of the United States there is not an element of order, strength and durability, to the introduction and adoption of which he did not powerfully contribute." The question whether Hamilton or Madison did the more toward creating our Constitution will, I presume, be debated forever. I can not discuss it now, much less decide it. Both were indispensable to the result; both deserve this nation's perpetual praise. My own judgment is that Hamilton conceived the earlier and the more vividly both the nation's need of a central sovereignty and a general plan for the realization of this; but that we are the more indebted to Madison for a true apprehension of what could and what could not be done, for a first definite sketch of a plan of reform, for patient, tentative effort toward realizing this, and for skill in weaving the new on to the old.

After all, if we look at the work of the convention, abstracting from specific preparations therefor, James Wilson of Pennsylvania was second in desert to neither Hamilton nor Madison. We have Washington's own word for it that "there was no abler nor honester man" in the body than Wilson. He was a native of Scotland, and had studied at Glasgow, Edinburgh and St. Andrews. Profound and systematic exploration in the history and the science of government had equipped him thoroughly for service as a constitution-framer. All the greatest extant works on law and jurisprudence were upon his shelves. Montesquieu he read daily. The Marquis de Chastellux praised his legal erudition at large, Lord Mansfield his grasp of

* Only in part: we have even yet no official or legal criterion of the President's "disability," a lack which, unless supplied, will yet cause us trouble.

the English Constitution. He was one of the very earliest, most zealous and most constant in opposing British tyranny and urging independence. Five times a member of the old Congress, he knew its impotence, and had reflected much upon remedies. He took a foremost place in the convention from the first day, and the results of his keen discrimination, boundless and ready information, and resolute but conciliatory spirit may be traced in every article and paragraph of our fundamental law.

We are thus brought around again to Madison. His part in the convention, as revealed by his journal and by our other sources, was modest but essential. Mr. Madison has been much maligned by some, highly praised by others — the treatment, indeed, of every truly able public servant. Hildreth, the historian, regards him, in his permission and ill-conduct of the War of 1812, "guilty of the greatest wrong and crime which it is possible for the head of a nation to commit." John Quincy Adams believed that when, on June 28, 1836, Madison's 'earthly part sank without a struggle into the grave, a spirit, bright as the seraphim that surround the throne of Omnipotence ascended to the bosom of his God.' Madison certainly did not shine as a President, and in countenancing the Virginia resolutions he too nearly fell into the heresy of nullification. That, however, he was from the first to the last a sturdy and intense patriot no student of his career can doubt. Still less questionable, if possible, is it that his entire agency in laying the foundations of our governmental fabric was inestimably valuable. But were we unjust enough to depreciate his work at other crises, we could not deny its value in this convention without rendering every one of the tongues heard there again vocal to rebuke us.

Madison probably had a better specific preparation for its business than any other member, having made the nature and history of Confederacies, ancient and modern, his earnest study for many years, and being keenly aware of their inherent weaknesses. He had his resources all well in hand. His industry was amazing. He was keen, lucid and honest in argument, firm, but not stiff in his convictions, never out of temper, never sarcastic, on the best of terms with all.

And so these great men wrought, Wilson, Hamilton, Madison and the others, as in them lay — wrought at the pillars of the edifice whose top they were never to see, whose top no eye hath even yet seen.

XII.

Discussion: "Defects in Our Present Educational Processes."

Remarks of PROFESSOR GEORGE M. FORBES, of the University of Rochester.

MR. CHANCELLOR, LADIES AND GENTLEMEN OF THE CONVOCATION.—In the very brief time allotted to me, I should like to devote five minutes to the consideration of one defect in our present educational processes, and five to making a partial suggestion as to the remedy.

The fundamental object of education is not to impart information, but to develop power—individual power. In attaining this object, there are three functions which devolve upon the teacher. The first of these functions is to kindle the intellectual fire and awaken the faculties of the mind to activity; in short, *stimulus*. The second is to select the proper subject-matter, *i. e.*, matter adapted to develop and discipline the various powers. The third is that of guidance and criticism. The spontaneous and uncritical activity of the youthful faculties is extremely crude and defective. It can not reach the goal of truth without constant guidance and criticism.

Of these functions the last seems hitherto to have wellnigh absorbed the efforts of our teachers. In text-books, teachers' classes, normal schools and institutes, the whole educational energy seems to be centered upon such careful arrangement, illustration and simplification of subject-matter as will furnish the pupil the easiest and quickest road to the truth sought. The second function, however, is now deservedly receiving more attention. The question of educational values, *i. e.*, the capacity of the different branches of knowledge to develop and discipline the various powers is now the subject of keen discussion. The first function is that which has been most neglected, and yet it is, I think, most important of all. Theoretically all teachers admit the importance of stimulus, practically this function is largely ignored. The result is a defect which vitiates all our educational processes. They are too *dogmatic* and *mechanical*, and they do not therefore, tend to produce that intellectual power and independence which stamp the truly disciplined mind. The strictures which are passed upon college graduates, and the sneers often indulged in at

their incapacity, derive their sole justification from this defect. It is certain that a man may absorb a large amount of learning, and yet have no real intellectual initiative and independence. The teacher gives the pupil the fact and also the interpretation, whereas the fact only should be given, or better the pupil should be incited to *observe* the fact, and then determine by his own intellectual activity, its true relations, the teacher supplying stimulus and guidance.

Socrates illustrates, perhaps better than any other teacher who ever lived, the true method of instruction. Men have never ceased to wonder at the amazing intellectual stimulus which he gave, not only to his pupils, but to his age. No better means to check the prevailing dogmatic and mechanical tendencies, and increase the teachers' power to rouse into activity the powers of his pupil can be found than the study of the Socratic method. That method was not chiefly philosophic but pedagogical. It is simply the externalization of the thinking process, a group of persons under the leadership of one of their number subjecting familiar facts to the process of interpretation. Socrates was preëminently a teacher. He never propounded a single purely philosophic doctrine. He never dogmatized about anything. His work represents a revolt against the dogmatism of his time. He simply "knew that he knew nothing." His method admits of almost universal application. Any teacher can by careful study and practice avail himself of the powerful stimulus of this method. He can learn by skillful questioning to incite and guide a group of coöperating minds in the observation, organization or interpretation of any class of facts which may be under consideration. The common method of measuring progress by the ground covered in a text-book must be abandoned. Progress must be gauged solely by the intellectual initiative, independence and power which is developed. Then we shall have a true educational standard, a natural method, an intense intellectual life in the school-room, and men of intellectual initiative and power in the world.

REMARKS OF PRINCIPAL A. C. HILL, OF COOK ACADEMY.

Mr. CHANCELLOR.—There are two kinds of defects in educational work. Defects in the means and defects in the ends of education. We have during the week discussed the defective means. But it does not after all matter so much what defects there are in the means providing the ends are reached. We can overlook the fact that taxpayers are compelled to pay for higher education while the elementary schools are neglected, if only the people are being well educated. But the cry has been raised that our schools are doing positive harm

in misdirecting the training of our youth, and a society has been organized in the city of New York to reform the public school system of that city. This discussion is therefore timely.

Among the noticeable defects of our educational processes, judging from results, is a failure to develop the emotional nature. Feeling is as much a faculty of the soul as intellect and should be educated. The tendency of our education is to neglect or repress rather than to direct and develop the emotional nature. The idea seems to be that the teacher should squeeze all the enthusiasm out of his pupils. The college training of to-day is defective in this direction. It sends young men into life without convictions or enthusiasm. It says, "be liberal," "sit on the fence, for there is something to be said on the other side," "don't step over," "leave your party to show your breadth," etc. Our education is too scientific, too intellectual and not emotional enough. Love of country, of humanity and of God are not inculcated as they should be. Courage may be taught. Darwin confessed to an atrophy of his moral nature and æsthetic sense. Goethe in an exclusive quest for intellectual perfection lost some of the finer elements of complete manhood. The Bible should have a place in the schools, if for no other reason, because of its power to rightly train the emotional nature.

A second defect is in the failure of our education to teach self-reliance. The educational system is an object lesson in dependence on the government. The worst feature of the prevalent mania for going to the public purse for money to maintain all education and to promote local enterprises is its effect upon the people themselves. It is un-American. The kind of legislation that is going on in this room during a large part of the year is an outgrowth of our public schools, in fact, the biggest lobbyists I know of are teachers. I am no admirer of President Cleveland, but he certainly said one wise and pithy thing, though he may have got it from the cyclopædia: "The people should support the government not the government the people." Then, too, self-reliance in the class-room is not taught as it should be. The aim seems to be to make things easy for the pupil and hard for the teacher. The power of original thought is not developed.

Our teaching is too professional. It has too much system and not enough teacher. The system is made the chief thing and the teacher turns the crank. Anything will do for a teacher, providing the method is all right. A teacher should be a companion to his pupils. Socrates was the greatest human teacher, because he walked about with his disciples—was one of them. Jesus Christ was a companion of those he would teach. A true teacher can not be chosen by votes—he is appointed by Almighty God and when found should be supplied with

all the necessary means for working out his divine mission in the presence of his pupils.

Another defect in our educational processes is the preponderance of lady teachers in the schools. It is said that ninety per cent of the teachers of the State are ladies. It is a mistaken notion that women are the natural teachers. While they excel in some qualities men surpasses them in others. The best education can be given by corps of teachers chosen about equally from both sexes.

REMARKS OF PROF. J. M. MILNE, OF THE STATE NORMAL SCHOOL AT CORTLAND.

LADIES AND GENTLEMEN OF THE CONVOCATION.—Much as I agree with the speaker who said that great stimulus was required, much as I may agree with the statement that the emotions are not sufficiently trained, there is another thought that comes to me more vividly than the rest, and an outgrowth of the utility of the age; an age when manual training is coming so quickly to the front; an age when in every walk of life, and in every profession, life is marked and measured by money value. We are losing sight of, we are not thinking enough, I say, of the individual soul, of the manhood of the individual. I can agree with the gentleman in good plans for the school-room, in a well equipped library, in necessary apparatus, in books, in method, but must remark that in the center of all there must be a man. "Systems," says Emerson, "are but the elongated shadows of great men." We are forgetting the fact that the teacher is fast drifting to have only a knowledge of processes, and caring but little for the character of the pupil, overlooking that the great end of education is character building. Man speaks to man, in this as in all ages. I would state it more definitely than Principal Hill or Professor Forbes; I believe that the great success of Socrates was his manhood. He was a man, and men gathered around him with expressions of love. I think we need more of interest than method. In many of our studies of method we are defective. We try to find the methods of men. We can study the methods of Froebel, of Ascham, of Ratich, of Pestalozzi, and we will be impressed that the lives of these men made them strong. This is true not only in teaching but in all departments of learning, and we too often forget that the love of method is the greater part of success. It is true in teaching, it is true in training. At the head of every historic epoch stands a great man. Moses, who led the children of Israel out of bondage; Socrates, who disenthralled his age in thought; Gladstone and Cavour in modern politics, Raphael and de Vinci in art, all these stand at the very beginning of their respective eras. All these men stood for ideas, and just in proportion as we represent ideas, we shall be successful as teachers. That, I

say, is the great part of the teacher. He should be a man of character, so that he shall inform man upon all living subjects; so that he will give life to life. I believe that the teacher should be in higher harmony with the times, and is charged with the responsibility of uplifting his generation. That certainly was true with the great ideal teacher, who said, "I came that they might have light, and have it more abundantly." I believe that as this has been the true mission of all teachers in the history of the world, so, to-day, that burden is upon us.

REMARKS OF PRINCIPAL J. W. FORD, OF COLGATE ACADEMY.

MR. CHANCELLOR.—In the few minutes allowed me, I will state three defects in our present method of education, and will suggest what may be the remedy for these defects. The first two I will state very briefly. The last with your permission, I will dwell upon somewhat. In the first place, I ought to say perhaps that what I have to say will concern the lower school, and will not apply to methods of instruction in colleges. The first defect that I would notice is, that I believe that manual training for boys, including mechanical drawing, and instruction in needlework for girls should be put into all our village schools, and in all the schools of our State of academic grade. I believe that this country is suffering greatly by reason of social troubles. This country is being harmed by a great amount of idle agitation by people who have nothing else to do. This country is troubled by a great number of paupers; and a great deal of crime and pauperism may be traced to idleness, and a great deal of idleness to ignorance, and a great deal of ignorance to lack of practicality in the public schools. We have men to teach Latin and Greek, in our village and city schools, when perhaps there are not five out of a hundred pupils who will have a chance to apply their knowledge of these subjects. I say it would be far preferable to engage help to teach boys the art of mechanical drawing, and girls the elements of needlework, and thus prevent pauperism and crime. The second defect I have to state leads me to differ from my friend Principal Hill. I am sorry for this, but I would give the boys and girls a great deal more for which they do not have to work. I think I would make it a great deal pleasanter for the pupils, and perhaps inspire them to a love of work. Now I have an opinion that if you put a boy into a tread-mill of learning, and then meet him in the class-room, in a tread-mill of recitation, the real value of the recitation is lost. His task becomes merely that of getting his lesson, and with such a task as that before him, almost any boy would lose his ambition. It is merely filling up with certain facts, in a cut and dried way, and then

having them drawn out again in response to certain questions. Far better than this, is the method which I shall advocate. I believe that the teacher should supplement the text-book. He should draw upon his own knowledge for facts to illustrate the subject of the recitation. Knowledge in this way comes to a boy as a free gift for which he does not work, and always pleases him, and creates a desire for more. Let me illustrate. If I have an hour's recitation in almost any study, I usually take forty minutes of that time to go over very carefully both review and advance lessons requiring careful recitation, and then for the last twenty minutes, I give the class a talk upon some points of the lesson. In this talk, I have as many facts as possible which are new to the class. I strive to arouse their interest, and this is by far the most profitable part of the recitation. I have tried the plan myself in many different studies, in the classics, in chemistry, in other sciences with marked interest in history, and even in Bible studies, and greatly to my surprise the students remember the facts, so imparted, better than they remember book studies. The last defect, and one which I mention with some hesitation, at the risk of being called a preacher, if not a cynic, and which I hope you will receive in the same spirit as that in which it is given, is that I believe the moral element in education is too weak, and has been dangerously misplaced. I don't mean using the Bible as a text-book, or opening the school with prayer. These things may be good if there is harmony of opinion. I don't mean giving a place in the curriculum to a text-book on moral science. I mean the necessary embodiment of morality in the character of every teacher, so that the best sentiment in the community will be satisfied in the teacher. We look up to the ministry as being a God-appointed office, to which no one is eligible unless specially and divinely called. We look down on teaching, and say practically that for this position any one is good enough. This is a broad statement, but nevertheless it is true. The position of the teacher should be exalted, and the way to exalt it is to have teachers with moral power. Only thus are we going to have good teaching. Now you can not educate a boy in sections neither can you educate a boy morally on Sunday only; his nature is complex. A boy happens to be a moral being, and his teacher happens to be a moral being also, and when they come together, there is a moral contact, and by reason of this contact there is a moral influence. By reason of the teacher's superiority and the boy's subordination, the opinions and examples of the teacher come to the boy clothed with authority. We often complain that religious teachers seem to have very little power over youth. Why? Because they are *away off from them*. There is no ground of real sympathy; you can not

so gain influence over a boy. But if you want to gain a boy's respect, tell him something he did not know before. Tom Brown said of Arnold, that the doctor was a man who knew everything, and Arnold held the key to Tom Brown's heart, as well as to his intellect. And this is why I insist that a larger place should be given to the moral element, in the conduct of school affairs, in the class-room, in any disciplinary matter that may come up. There should be something more than mere discipline in school affairs. There should be justice. The school-room is a court, and what is singular, the teacher as well as the pupil happens to be judge, jury and on trial by turns. There is no place where the moral sense is so alert as in school. The boy gets his moral ideas and forms his moral creed from the ideas that he sees in practice there. Now I am a great deal of a Calvinist in a way. I believe that blood is thicker than water. Yet, I will say that many a boy comes into school with moral defects which his home may have fostered, and goes out, having had those faults corrected by a manly teacher. I regret that the limits of my time do not allow me to give specific examples of this defect as I would like to do.

Let us as teachers exalt the moral element in our work. Let us always have the virtues of courtesy and truth and justice and let us remember that in moral possibilities our calling is as high as the highest work man can do.

REMARKS OF C. W. BARDDEEN, EDITOR OF THE "SCHOOL BULLETIN."

MR. CHANCELLOR.—The principal deficiency in our school work of to-day is brains. A good deal of brains gets into the teacher's profession, but comparatively little stays there. The biography of any great man is pretty sure to tell that he soon got into teaching; it is pretty sure to add that he soon got out of it—if he hadn't got out of it he never would have been a great man. As a wayside inn on the road to fame, teaching is like New Hampshire for a birthplace—capital if you don't stay there too long.

But some brains stay in the profession. What we complain of, what we would like to see remedied, is that our modern methods of organization and instruction tend in many ways to make what brains teachers have useless, if not an obstacle to promotion.

The story is old of the schoolmaster out west who offered to teach that the earth was round or that it was flat according to the opinion of the committee. It never was much of a joke. The teachers of New York have got to teach round or flat according to the committee, or get bounced.

We don't mean that the theories of Mr. Jasper—Mr. Jasper of Richmond; the complaint against the other Mr. Jasper is that he hasn't

any theories—prevail on that particular point, which is not just now an issue among us. But we do mean that boards of education lay down a course of study which teachers must follow whether or not they were consulted in forming it; that teachers must use text-books adopted by the board, often in face of protests from the teachers; that if principals they are held responsible for teachers they had no voice in hiring and are known to have no voice in discharging; that if subordinates they find their work narrowed down to so many paragraphs a day, like a Belgian ironworker whose whole life has been devoted to making a certain rivet, filling some unknown function in a machine he never saw complete.

When the writer was in college, long before the days of original work in geometry, it occurred to him to devise a different demonstration from that in the book for a theorem he was called upon for. So he put it on the board and explained it. The tutor was perplexed. "Would you mind going over that once more?" he said. So it was gone over again and the tutor followed it as well as he could. "It seems to be right," he said, hesitatingly. "I will mark you four on it; but hereafter I prefer that you should follow the demonstration in the book."

Well, it is easier. If the object lessons laid down for the teacher expect the pupil when asked for an illustration of a cylinder to answer, "*A lead-pencil*," and continue to develop this answer, it disarranges things to have one pupil answer "*A stove-pipe hat*." Teachers have been known to mark the pupil wrong and call him stupid for such a departure from the printed page.

There is a certain charm in system and uniformity. Some people admire the Paris administrator who could take out his watch and say "At this instant every nineteenth grade pupil in France is spelling the second syllable of *patrie*."

But uniformity has little need of brains. A wooden man could see to it that all the pupils in a New York grammar school rise as the principal enters and call out with one voice, "Good-morning, Mr. Smith," while it would take brains and genuine personal interest in his pupils to get every one of those thousand pupils into the individual habit of greeting his teachers cordially and gracefully whenever he happened to meet them. The chorus is easier and it makes more show.

Many of our readers are principals who hire more or less directly the teachers employed under them. Let such of you put your hands on your hearts and tell us honestly whether if you ask us about a teacher and we reply simply "She is original in her methods," you will not be prejudiced against her. You don't want original teachers.

You want teachers who will do what you tell them to do, as you expect them to do it. Their vagaries may be all right but you have no time to look into them. You sympathize with the woman who preferred the Episcopal service because she didn't have to watch the clergyman to see he didn't go wild.

What follows? Only two kinds of teachers are successful — those who haven't any ideas and are glad to have grooves furnished; and those who have ideas, but unite with them shrewdness enough to inject them into you before using them, and make you think they are your own. You, in turn, have had to employ the same tactics when you wanted your views carried out by the board of education.

Now, if this is true of you, who are teachers yourselves, with more leisure, more energy, and higher purposes than most teachers, what can be expected of a board of education of a large city?

In his address before the State Association, the State Superintendent pointed out that as the purpose of public education had changed from the good of the pupil to the good of the State, so the importance of the teacher was gradually becoming lost in the increasing power of the trustees. This is true largely in proportion to the size of the school. You can tell whether a book-agent has cut his eye-teeth by watching whom he lays himself out upon. In the small village he can often complete his business with the principal alone. If he spent his time in Troy or in Syracuse trying to "commit" the teachers to his new geography, his opponent, secure of two or three members of the board, would smile blandly.

Hence we have felt for a long time that the best place for a young teacher of energy, of ambition and of ideas was a union school of from six to a dozen teachers. The purchasing and other interests are not large enough to tempt the average board of education to interfere, and if the principal gives good satisfaction he often has things his own way. In the school at Hancock the entire charge, including the hiring of teachers, was for some years put into the hands of Principal Skinner by contract. He was paid some \$2,000 by tax, and was allowed to pocket all the receipts and pay all the expenses of the school.

This is undoubtedly too much power. It was safe in the hands of this particular man, but would be misused by a narrow-minded principal. Considerable power, however, there must be. The novelty of the "Quincy system" did not consist in the methods, which were old, or in the philosophy, much of which was unsound, but in the entrusting to the superintendent the general management of the school, and holding him responsible for results. That introduction into education

of this fundamental business principle seems to us to be one of the earliest reforms desired. The responsibility will demand brain-power in the superintendent, and his search will be for brain-power in his teachers.

REMARKS OF PRESIDENT C. K. ADAMS, OF CORNELL UNIVERSITY.

Mr. CHANCELLOR.—I come before the Convocation under a two-fold embarrassment. My first embarrassment arises in regard to what we are to understand by the word "processes." I shall, however, presume that it was the intention of the committee to include everything that has to do with making education efficient. My second embarrassment comes to me upon this floor, and I feel like the boy who thought he ought to thrash the other boy because he had stolen away his story. I have no serious purpose of carrying out the action of that boy, but I find myself driven to change my intention as to the course of this discussion. Having come so recently into this State, it would be an unwarrantable presumption to criticise in detail the methods of the school system. I regret that I have not been able, as yet, to make myself familiar with these methods. It has been impossible for me to form any very confident belief as to what is being done in the school-room. I am, therefore, not prepared to express any opinion as to whether the methods in the school-room are those which I should approve, or whether they are not. I am obliged to judge of the methods from the results as I see them in the pupils that come to Cornell University. It is for this reason that I shall not attempt to discriminate between the schools of this and other States. I shall content myself with asking whether as much is accomplished in this State, and in other States, as ought to be accomplished from the expenditure of money that is being put forth. I fear that the answer to this question must be in the negative. We support our normal schools and academies to a certain extent out of the public treasury, and it is but fair to look at the results and ascertain whether as much has been accomplished as ought to have been from the amount of money expended. How are we to judge? There is no better way than by comparing the results in our own country with the results that are obtained in other countries. I am not one of those who believe we have nothing to learn from foreign countries. I turn to the experience of other peoples because I think the largest results have often by them been obtained. I know of no more promising way than to look to those experiments, and judge from the results whether we are likely to profit by applying them in our own schools. And when I look around and see what is accomplished in other countries, we find that, in some countries at least, far greater results have been reached

than are reached here. I have been interested in looking over the superintendent's reports with regard to the schools of the different cities and States. I find, for example, in the city of Brooklyn that, as a rule, pupils leaving the grammar school have been there from their earliest childhood up to fifteen or more years of age; and I am obliged to confess that they have accomplished what seems to be very small results compared with what I have seen in corresponding grades of schools in other countries. That report shows that the boys average a little more than fifteen years of age, that the girls are a little more than fifteen years and nine months of age when they leave the grammar school. And what have they learned at the end of fifteen years? A little knowledge of reading, arithmetic and geography, and have had two terms of algebra. Have I forgotten anything of importance? Is there anything more? As I remember it, that is about all. Now, any one who visits the public schools of Prussia will see all of this and at least the rudiments of several languages besides. I have seen boys of seventeen and eighteen years of age carrying on a discussion in Latin that was correct in form and fluent in expression. These same boys of eighteen and nineteen years of age have studied Greek and a great deal of French and usually a little English before going to the university. Now I can not be blind to the fact, that vastly more has been obtained by the boys of Germany at least when they reach the age of eighteen, under their methods, than is ever acquired in this country by our methods during the same length of time. And that brings me to what I am to say about what seems to me to be some of the radical defects in our system. I should agree with very much that has been said here to-day, yet it seems to me that the radical defects may be more specifically generalized. In the first place there is a lack of proper coördination of the various departments of education. I mean by this that our different classes of schools do not attend with sufficient exclusiveness to doing the work which they were designed to do. The grammar schools often attempt to do a part of the work of the high schools; the normal schools to some extent, I fear, attempt to do the work of the academies. The colleges I am certain are not limiting their efforts to their own legitimate work. They are in part at least doing the work of the high schools and academies. In some way or other this confusion of functions ought to be brought to an end. I believe that the college officers ought to agree on what the several colleges will require, and that this requirement should be furnished by the high schools and the academies. I think our normal schools should confine themselves to the work of training teachers. They ought not

to interfere with the work of the academies and high schools. I know very well that we can not model our system or normal schools strictly after the system of Prussia. In Prussia the normal school is a State institution. It is like our West Point, a school maintained by government, in which students from the time of entrance are state officers receiving government pay. But I believe that in our country the normal school need not allow anything to come into its curriculum that does not have a direct and positive bearing on the work of preparing teachers for their work. So the colleges of this country ought to eliminate from the curricula all academic work that can possibly be done by the academies. I know that at Cornell University much remains to be done in this direction; but during the last year we have taken two great steps in advance, and I hope that within a very short time the colleges of this State will be able to come together and agree upon what they will require. In my judgment, all the colleges ought for the same courses, to require the same things, so that the boy before he makes up his mind what college he will go to, can fit himself for any of the colleges of the State. It was said upon this floor last year, by a president of one of the colleges, that he thought the president of Cornell University ought to make an attempt at forming a union for the purpose of securing uniform college requirements for entrance. While I would willingly second such a movement, because I think all ought to agree upon what we should require, I hardly think it my place to take the initiatory step. But I think that if such uniformity could be secured, we could set up a continued succession from the grammar school into the high school, and from the high school into the college. Such, in my judgment, is the first great defect in our system. The second is equally important. It is that there is too much dependence upon formalism, and too little dependence upon the living personality of the teacher. There has been considerable said upon this by those members of the Convocation who have preceded me, and I will not say a word in reference to it except to give it the emphasis I think it deserves. What I wish to say with emphasis is that in my belief in our educational system there is too much formalism. This everlasting marking, this everlasting making of statistics, this marking of pupils for what they have accomplished, all this takes the time and exhausts the energy of the teacher that ought to be turned to the work of thinking how he will fill his pupils with inspiration and a genuine love for his work. Why, is not inspiration in the school everything? Do we not forget most of what we learn in the schools? Do we not forget our chemistry, our mathematics, our botany? Do we not forget everything with the

exception of that which we endeavor to bring to the special work of our subsequent lives? I say inspiration is the great thing that is to be sought. Everything should be turned to the work of inspiring the pupil to be something, rather than to learn something. Such an ideal ought ever to be kept before the teacher and the pupil. Another serious defect in our educational system is in giving pupils the impression that an education can be properly completed in the academy or in the grammar school. The whole system ought to be regarded as a unit. The education of the State of New York ought to be a complete ladder reaching from the lowest school to the highest. It ought not to be a zig-zag course. The pupil ought to be taught that his education is not complete until he has completed a college education. I sometimes think that it is a little wrong to call the closing exercises of an academy a graduation, when it does not carry with it a degree. We speak of the closing exercises of the high school as graduating exercises. I think the idea ought to prevail that pupils have only a fragment of an education so long as they have not taken a university course. It may be said that the facilities are not so far advanced for obtaining such an education as will justify all in attempting what I am urging. At present this is true. The facilities in some portions of the State are very limited. In Brooklyn, to which I have already referred, there is, I believe, but one high school for 900,000 inhabitants, and there are in the schools some 4,000 teachers. They are doing the work simply of grammar schools; and a great majority, probably nine-tenths of those pupils who complete the course of the grammar schools, never think that it is necessary, and hardly think it is desirable, that they should go further. A great portion of these perhaps do not care to go further than the grammar schools. But the idea should prevail that they can not claim to have been educated unless they have gone through the high school or academy, and also, if possible, through a college or a university.



XIII.

Greek and Latin the Best Means of the Best Education To-day.

By HON. DANIEL H. CHAMBERLAIN, LL. D., New York city.

I think it proper to begin my address with the remark that the substance of the views which I shall present has been already presented by me on several occasions not unlike this during the past four years.

Five years ago, before the *Phi. B. K.* of Harvard University, Mr. Charles Francis Adams, Jr., assailed the compulsory study of Greek and Latin in colleges in terms of almost unmeasured denunciation. His disparagement of the value of these studies for our day was almost equally unmeasured. Mr. Adams' address carried with it the weight only of the judgment of a man of affairs, not of a scholar or an educator. He made his appeal to the judgment of those who were not scholars and drew his arguments from an experience of the results, as he declared them, in his own case and that of his family, of the pursuit of those studies in Harvard College thirty or forty years ago. As one who had had a similar college training as well as one who had always, since college days, been over-busy with an exacting profession, and at times distracted by the cares of public life, the lines of whose life had always lain quite aside from the walks and ways of scholars, I ventured in the address which I am now, in substance, to repeat, to challenge Mr. Adams' views and arguments, and to maintain that the study of Greek and Latin ought to be considered fundamental to a liberal education, fundamental in the disciplinary training which precedes entrance on the active, responsible work of life. On one occasion of my address, an eminent educator paid me the compliment and criticism of repeating the French phrase,—“*C'est magnifique, mais ce n'est pas la guerre,*” which he freely translated — “It is all very fine, but it won't do!” Well, if this be true,—if these studies are not the best studies for us all, for the training of the average man of affairs and business as well as for scholars and men of letters,—I should be inclined to say—abandon them for better studies, for I profess to be in sympathy of spirit with those who feel that our schools, colleges, universities, all our public appliances of education, should be so arranged and devised as to give the largest possible

amount of sound popular education. America is not Europe. This is not the fifteenth or seventeenth century, but the nineteenth century. Harvard and Yale are not and ought not to be Oxford and Cambridge. "Humanity sweeps onward," and educators must move with it or become superfluous laggards.

So then, I accept the test of my friend and ask, "Will they 'do'?" Are Greek and Latin outworn methods,—studies fit only for ornament, for cultured ease or learned retreat?

While I was pondering this question, a little more than two years after Mr. Adams' address was made, I heard another voice from the same platform at Harvard, the voice not only of the most illustrious American man of letters of his generation, but, as your own Vice-Chancellor has lately said, of "one of the noblest of living Americans, of lofty genius and character, one of the most spotless of citizens, one of the most upright of men," James Russell Lowell, and this commanding and authoritative voice gave another sound and taught another lesson. Said Mr. Lowell, at Harvard's commemoration of the two hundred and fiftieth anniversary:

"I hope the day may never come when the weightier matters of a language,—namely, such parts of its literature as have overcome death by reason of their wisdom and of the beauty in which it is incarnated; such parts as are universal by reason of their civilizing properties, their power to elevate and fortify the mind,—I hope the day may never come when these are not predominant in the teaching given here. Let the humanities be maintained undiminished in their ancient right. Leave in their traditional preëminence those arts that were rightly called liberal; those studies that kindle the imagination, and through it irradiate the reason; those studies that manumitted the modern mind; those in which the brains of finest temper have found alike their stimulus and their repose, taught by them that the power of intellect is heightened in proportion as it is made gracious by measure and symmetry. Give us science, too; but give first of all, and last of all, the science that ennobles life and makes it generous. Many-sidedness of culture makes our vision clearer and keener in particulars. For, after all, the noblest definition of science is that breadth and impartiality of view which liberates the mind from specialties, and enables it to organize whatever we learn, so that it becomes real knowledge by being brought into true and helpful relation with the rest."

And again he says:

"We are comforted by being told that in this we are only complying with what is called the Spirit of the Age, which may be, after all,

only a finer name for the mischievous goblin known to our forefathers as Puck. I have seen several spirits of the age in my time, of very different voices and summoning in very different directions, but unanimous in their propensity to land us in the mire at last. Would it not be safer to make sure first whether the Spirit of the Age—who would be a very insignificant fellow if we docked him of his capitals—be not a lying spirit, since such there are? * * * One of the arguments against the compulsory study of Greek—namely, that it is wiser to give our time to modern languages and modern history than to dead languages and ancient history—involves, I think, a verbal fallacy. Only those languages can properly be called dead in which nothing living has been written. If the classic languages are dead, they yet speak to us, and with a clearer voice than that of any living tongue.”

“If their language is dead, yet the literature it enshrines is rammed with life as perhaps no other writings, except Shakespeare’s, ever was or will be. It is enraptured; for it appeals not to the man of then or now, but to the entire round of human nature itself. Men are ephemeral or evanescent, but whatever page the authentic soul of man has touched with her immortalizing finger, no matter how long ago, is still young and fair as it was to the world’s gray fathers. Oblivion looks in the face of the Grecian muse only to forget her errand. Plato and Aristotle are not names, but things. On a chart that should represent the firm earth and wavering oceans of the human mind, they would be marked as mountain ranges, forever modifying the temperature, the currents, and the atmosphere of thought, astronomical stations whence the movements of the lamps of heaven might best be observed and predicted. Even for the mastering of our own tongue, there is no expedient so fruitful as translation out of another; how much more when that other is a language at once so precise and so flexible as the Greek! Greek literature is also the most fruitful comment on our own. Coleridge has told us with what profit he was made to study Shakespeare and Milton in conjunction with the Greek dramatists. It is no sentimental argument for this study that the most justly balanced, the most serene, and the most fecundating minds since the revival of learning have been steeped in and saturated with Greek literature. We know not whither other studies will lead us, especially if dissociated from this; we do know to what summits, far above our lower region of turmoil, this has led, and what the many-sided outlook thence. Will such studies make anachronisms of us, unfit us for the duties and the business of to-day?”

The true voice, then, I think I may say, of our oldest university confirms the views which I have so long held, and so when I received your honoring invitation to be here, I felt willing to undertake again, in full view of the criticism I have referred to, to maintain my thesis—that *Greek and Latin are still the best means of the best education to-day.*

I lay it down, for the purpose of this discussion, that college studies—education—should have for their chief and controlling object the training, discipline, *education* of the mental faculties; that the end and aim of a college curriculum—the prescribed and enforced plan of study—should be always the general development, direction, inspiration and education of the mental powers. Mental power, the power and faculty to organize and direct the forces of human society—the wants, desires, interests of men—is, in the only sense here under consideration, the object of education.

It appears to me perfectly obvious, and it has so appeared to the wisest educators in all modern times, that the foremost means to such an end is the study of language—the careful, thorough, long continued study of the principles, structures and uses of language. The languages and mathematics—the faculty and art of expression in language, and the habit and power of accurate, systematic reasoning—constitute, and have in modern times constituted, the means of education, in this sense. Along with these, as a matter of necessary information or knowledge, goes the study of history, geography and something of what we call natural science; but language and mathematics are the chief disciplinary agents. Beyond a very narrow limit of mere utility for the commonest walks of life, the aim and value of the study of language and mathematics, in schools and colleges, are disciplinary. Now, one seldom, if ever, hears the study of mathematics opposed or derided. They stand generally unchallenged. Why? Not because, beyond a very narrow limit, they are used, or are expected to be used, in the work of life. Like the use of the physical gymnasium and its appliances, the further study of mathematics is left to the leisure, the taste or the sense of duty of the individual man when engaged in the active pursuits of life. There can be no doubt that a life-long pursuit or study of mathematics would promote the strength and facility of the mental powers, just as a frequent or regular recurrence to the gymnasium or the athletic sports of youth would continue to give strength and endurance to the body.

Why, then, do mathematics stand unchallenged in all our prescribed courses? I suppose no other answer can be given than that the mathematics are held valuable, essential for intellectual training,

and that the fact of their almost complete disuse in after life is not held to affect their value as means of mental discipline in schools and colleges.

Now, I do not think the reasons why the study of language and the art of using it are held to be essential to the best mental training are hard to understand. Language is the universal medium of thought; the chief, almost the only vehicle by which thought in all its forms is or can be communicated. In a strict and very high sense, language is thought. Reason, reflection, emotion—all the highest powers of human nature—must seek language for expression and for influence on men. The tones of music, the tints of painting, the forms of sculpture are indeed modes of expressing thought, but ordinarily a man's power, his mental power, his power to influence other men, is measured by his power to express thought in language.

If, then, language is the vehicle of thought, the condition of making thought and the mental faculties influential, the study of language—its nature, its structure, its uses, its capacities, its highest manifestations, its noblest and most powerful forms—is necessarily the first and highest instrumentality for developing, training, educating the mental powers; absolute in its necessity, first in order of time, highest in the scale of importance.

The study of language is, therefore, in no sense a mere prescription of the schools, an ancient educational superstition, a "college fetish." It is a primordial necessity for the exercise of the human mind and reason, for the unlocking, the development of one's own powers of mind, for influencing, guiding, and controlling the minds, actions, and lives of other men.

We are now, I think, at a point where the question becomes simply, what languages—what forms, what growths and developments of language—are best suited for instruction and training in the knowledge and art of using language?

In answering this question, certainly no language, no literature can be put aside because remote in time; no language, no literature which in itself is of high value for its structure, its power or its beauty, can be described, as Mr. Adams has described the Greek language and literature, as "Bearing no immediate relation to any living speech or literature of value." I hold it to be obviously a matter of little or no moment in answering this question, whether the language selected as a "fundamental," is now spoken on the continent of Europe or of America, or whether it disappeared as a spoken language two thousand years ago. The only consideration is, what can a given language,

what can the study of a given language, do for us to-day in the training of our mental faculties and in teaching us how to use the language to which we are born? In the matter of the choice of a language for this purpose I *might* appeal for what I confess I should consider a conclusive answer, to the opinions and practice of the learned and wise in these matters of all ages. For, without important exception, it might be said that in all times, and in all cultivated lands, since the conquering Roman eagles were planted on the Acropolis of Athens, and Greek national life expired, and her language in its ancient purity and prevalence ceased to be the spoken language of a powerful and independent nation, the Greek language has been regarded as the most perfect form of human speech, and its study has been regarded as the best means of intellectual training, and of teaching the art of using language.

But I am not quite willing to pause with this answer. Those who call the study of this language a "fetish," I am afraid, might still say that other superstitions, too, have survived all the mutations of time, and are still flourishing to-day.

In what, then, it may be useful to ask, consists the superior value of the Greek language as an instrument of educational training or a means of teaching us the best and most effective use of our own tongue?

I can not pause here to attempt to explain how the great fact of the Greek language, the Greek literature, the Greek nationality, the Greek character, came about. No subject could well be more interesting or more important in some aspects of this theme. That on the little triangular peninsula of Greece, a region for the most part rocky and mountainous, a soil in general thin and poor; while Asia on the east presented only vast despotisms, supported by all the appliances of oriental servitude and superstition, without literature, without freedom, or the hope or desire of freedom; while Rome, on the west, was struggling for existence on the Italian peninsula, and the pall of barbarism was spread over all the rest of the continent of Europe; five or six centuries before the birth of Christ; more than twenty centuries before America was discovered; there arose and grew up a people and nation whose achievements in literature, oratory, poetry, philosophy, art, government — in all the arts of war and peace — not only made them the foremost people of that age, but have extended and perpetuated their influence through all the phases of mediæval and modern history and civilization, and throughout all the cultivated nations of the modern world; this, I conceive to be the most remarkable single fact, arising from what we are accustomed to call

natural causes, which the whole history of man presents. But of all this no part can be touched here.

Great in all ways as is the fact of ancient Greece — her valor, her art, all the forms of her social achievements—it is to the perfection of her language and literature that all the cultivated world has done its heartiest homage. In what then, I repeat, consists the value of the Greek language as an instrument of educational training for us?

It consists, first, in the fact that the Greek language is an *ancient* language; in the remoteness of the period in which it arose and took its form. The Greeks were the first people who played a conspicuous part in history, whose social life, politics, manners, literature, were the outgrowth and product of human reason and the spirit of freedom. The controlling forces which moved and inspired the people who gave Greece her character, and molded her destinies, were reason and the love of freedom, personal, social, political freedom. But this language, in addition to being the mold and form which reason and the spirit of freedom first took, was also in a strict sense a *growth*, the result of the fusion, contact, intermingling of distinct dialects, the related parts or fragments of an organic whole.

No one who has ever examined this subject has failed to see that the Greek language and its literature were, in the completest and most absolute sense, *growths* — as natural and original as any growths of physical nature. The Greeks had no models. Their language, except in its most primitive forms, their literature in all its great forms, were original productions of their own. The three great factors of the language — the light and rude Æolic, the strong and grave Doric, the soft and liquid Ionic — each had its separate growth, influenced and determined simply by the great natural environments and conditions, of race, locality and intercourse.

In its most perfect development, the Greek language presents, therefore, a linguistic growth which in the main, and to a degree greater than any other, was natural and regular, according to the genius and spirit of one people, yet not confined to one mold or form, but enriched and enlarged by the mingling of three principal, well defined, well developed dialects.

Not only was this the manner in which the Greek language arose, but in this process of growth, its structure and vocabulary became to the highest degree artistic, flexible and rich. Nothing here is more remarkable than its purity, its freedom from foreign influences. Leaving out of view those questions concerning the origin and original relations of the different members of the great family of Indo-European languages — questions about which only learned specialists in

philology can be profitably concerned—it may be safely said that no language, ancient or modern, is so original, so completely developed according to the spirit and genius of the people who used it.

To all these characteristics are to be added its beauty and power, and their development into the Greek literature.

It is difficult of course, to demonstrate the truth of what has just been laid down, to those who choose to deny or discredit it, but among those who profess themselves competent to judge, or among those whom others would judge competent, I know of no important dissent from the claims which have now been made, namely, the preëminence of the Greek language among all languages in purity, power and beauty, and the preëminence of the Greek literature among all literatures, in the perfection of its form and style.

And if it be true that the Greek language presents these qualities; if it is in a superior degree original and underived; in growth and development regular and natural; in vocabulary and form rich, flexible, powerful and artistic, then surely its study is adapted to the work of training and educating the human faculties in the knowledge and practice of language, the art of expression in language, which we have already seen, is at once the condition and means of the exercise of intellectual power.

The fact that it is an ancient language, the growth of an age when what we may call the intellectual order of the world was fixed, when the laws and methods of intellectual work and action were first determined, adds directly to its value as an implement of education. It is a completed growth. Its fairest flowers, its richest fruits, appeared many centuries ago. There in the distant past it lies, the fair perfected growth of the young intellect of the world; product of intellectual forces which are still, always and everywhere, the source and inspiration of literature and science; true to nature and fact; pervaded, molded, lit up by the very spirit of intellectual freedom, love of knowledge, and the sense of beauty.

To study Greek, is, then, to study the sources of artistic, cultivated language; to study a language more original in its forms and structure, more powerful, more subtle, more expressive than any living spoken language, as well as a literature unequalled in its exhibition of the capacities of human language.

For, if the Greek language presents these advantages for the study of language—its origin, growth and structure—the Greek literature, the best products of this language in the period of its most perfect development, presents in form and style the highest specimens of the literary art. Here I desire to state the claims of Greek

literature with accuracy and moderation. I do not mean, and I do not understand the classicists so-called anywhere to mean, that Greek literature expresses the best present results of human thought in science, morality, philosophy or religion. It does not; it could not. Greek literature was produced in an age of the most limited knowledge of the great subjects which most concern men in modern times. It is not in Greek literature of the classic period that we find what may be called the best results of human thought as applied to the material world of nature and life, or to those problems which concern the present moral duties or the future destiny of man. The materials of modern literature are incomparably richer, the results of modern thought are immeasurably more valuable and beneficent.

Let us concede and assert all this; yet it remains true that the Greek mind was unequalled in its mastery of all the materials of knowledge then available for the discovery of the rules of thought, the absolute and true intellectual methods; while in a certain sense of proportion, a due measure and moderation of spirit in all their literary work, they have succeeded in giving unquestioned rules to all who have come after them. "For," said Lessing, "it was the privilege of the ancients never in any matter to do too much or too little." The result has been that while as sources of knowledge on most themes which concern the world of modern thought and life, Greek literature offers comparatively little, yet as the means of instruction in methods of thought, of composition, of literary arrangement, especially of all the methods and arts of expression in written or spoken language, unfailing and absolute literary taste, no literature is comparable to the Greek.

Here we find, again, the qualities which we most need in the work of education; not the facts of science, nor the marvelous laws of the material world, which modern science has discovered; not the final truths or highest principles of morality and religion of which the modern world is possessed, but a language, a form of speech, a method of intellectual work, of literary production, which has since stood to the whole literary world, including every cultivated age and nation, as the best example and final test of literary excellence; for, I think, the French critic, Ampère, expressed the feeling and judgment of those who have deeply studied many literatures in saying that whenever he came back from other studies and reopened Homer or Sophocles he was forced to exclaim: "*Voilà la beauté véritable et souveraine ; jamais il ne s'est écrit rien de pareil chez les hommes*"

I wish to avoid all mere eulogy here, and I take leave to point out specifically where and in what, I think, lie these excellences of Greek literature.

There were in Greece, as there are now, four great divisions of literary work and activity, which engaged the highest efforts of the greatest minds — poetry, history, oratory, philosophy.

Now, in each of these departments Greek literature presents one or two names to which, I think, succeeding ages offer no equals. Consider, first, the poetry of Homer, undoubtedly the most valuable poetical monument the world contains. The two great Homeric poems are concerned with themes apparently the most remote from the modern world. The characters are grotesque deities and legendary heroes. The scenes and events lie in the cloudland of mythology and tradition, having little foundation in historic fact. The sentiments of the poems are often, perhaps generally, those of a society but partially touched by the softening, humanizing influences of what we call civilization; yet these poems speak the same voice to all ages. They are simple pictures of human action and feeling; they do not seek primarily to teach morals, religion or politics. Their interest is purely dramatic; but no one who has every read Homer intelligently, in the original, has failed to find here, to a degree quite unequalled elsewhere, the four qualities which Mr. Arnold has enumerated — rapidity of movement, plainness and directness of style, plainness and directness of ideas, and nobleness of treatment. These are, I suppose one may say with confidence, the very highest qualities of narrative or epic poetry. So that if it is desirable that our youth should be taught by an acquaintance with the highest examples of such poetry, it is clear that the poems of Homer must be studied.

So in tragedy or tragic poetry, Æschylus stands in a similar relation to all the literature which has since been produced. Not only was he the founder and father of Greek tragedy as a form of literary production, he was likewise the inventor of the drama as a form of imitative art, and his themes, his ideas, his tone, the color of his genius and spirit, as now shown in all his principal works, are lofty, pure, earnest, in the highest degree. There are passages in the *Eumenides* and *Prometheus Bound* which, as specimens of literary art and intellectual power, are worthy to stand as models forever. Not to know Æschylus is not to know what was first in time, and is, perhaps, highest in conception and style in the whole range of tragic poetry and dramatic art.

And, undoubtedly, in the art of historical writing, in historical narrative, or disquisition, or judgment, there is no name that can be placed on an equal elevation with Thucydides. He was the first writer who treated history philosophically; that is, regarded its outward features as the strict result of causes which it is the historian's

proper task to discover and point out. His tone is judicial and elevated, his analysis deep and penetrating. But I can never help thinking that the literary merits of his work form his highest title to our study and reverence. He is a great example of Lessing's remark already quoted. His principles of art were so fundamental that no feelings aroused by the events of his narratives ever betray or hurry him beyond the just limit of expression or judgment.

His relations, too, to the growth of Greek prose give a special value to his writings as studies in language. He wrote in what has been called an "ante-grammatical age," and he fixed as much as any one the rules and canons of artistic prose-writing, of which he was at once author and exemplar.

But in the great art of oratory, the most powerful and attractive of all forms of literary art, Greek literature presents Demosthenes. For my own part, there is hardly a career in statesmanship, and the conduct and shaping of public affairs, which seems to me better deserving the study of the statesmen of to-day. The period in which he lived, the forces with which he dealt, the results which depended on the events with which he was connected, form a chapter of political history of the highest intrinsic interest and value. His public aims and methods, his personal and public character, his devotion to high principles and ideals of duty, make him an historical figure worthy of perpetual observation and admiration. But in the field of oratory, in the preparation and delivery of public speeches, lies his preëminent claim to greatness. Here it is hard to say which of many supreme merits he exhibited in highest degree. A severity of style which never fails, a subordination of all the arts and devices of rhetoric to the orator's great purpose; but with all this, elevation of sentiment, power of demonstration, wealth of illustration, passion of appeal and persuasion, patriotic ardor—a combination to which no trait of power or beauty seems wanting, and which apparently exhausts the capacity of language—this is the oratory of Demosthenes.

In the field of philosophical speculation, the search for ideal truth, logical, metaphysical, ethical, psychological, and political, Greek literature has given us Plato. And of the works of Plato it may be said that, apart from the thought which they contain, they are true literary masterpieces.

Of Plato's philosophical speculations and conclusions, this also is true, that the impulse which he gave to speculative thought, and the methods he pursued have left the deepest traces in all subsequent thought and literature. "Plato," says Emerson, "is philosophy, and philosophy, Plato—at once the glory and the shame of mankind, since

neither Saxon nor Roman have availed to add any idea to his categories."

Then came Aristotle, who covered the whole range of thought of his age, carrying speculative philosophy to its highest results, and devising and stating the methods and laws of all intellectual inquiry. He was also the first writer who can be said to have written the history of philosophy; while in the art of classification, in accumulating and systematizing knowledge of facts, and in the scientific method of treating all subjects, in analytic insight and power, he remains still the first in time, and in many respects the greatest of the world's teachers.

Such, in a meager and most limited statement, are some of the contents of Greek literature. In all the departments of intellectual exertion to which they severally belong, these are the original sources, the earliest great examples. Their influence, as a matter of fact, has been powerful and continuous in all the intellectual history and progress of the world. All literature of value, as a matter of fact, has been strongly affected by the Greek authors whom I have named. However much the objects and materials of literary art have changed, however many of the conclusions or teachings of Greek philosophy have been disproved and rejected, the intellectual processes and literary standards which Greek literature first illustrated and enforced, have survived and are in use now.

No man, then, can aspire to become cultivated in these leading departments of intellectual effort, or to become familiar with the progress and results of the intellectual history of mankind, unless he deeply studies Greek literature.

And if to this consideration, we add what is indisputable and obvious, that translations can never perfectly, and rarely adequately reproduce the meanings and impressions of the original works, the conclusions can not be avoided that an acquaintance with Greek literature, through a knowledge of the Greek language, is and must be, whether required by schools and colleges or not, an indispensable means for laying the foundation of the broadest culture, the most useful and effective mental training. The Greek language and literature are thus, whether we will or not, a "fundamental requirement," "without which," in the words of Mr. Adams, "no one can pursue a speciality to (the highest) advantage."

As soon as one really reflects on this matter, and seriously inquires what is, by its nature and office, "fundamental" to a high, or strong, or useful, or adequate training and culture for the work of modern life, he finds that by no convention of scholars so-called, in deference

to no long-cherished superstition, through the worship of no "fetish," but by a necessity arising from the plain facts of the world's intellectual and literary history, the Greek language and literature are the only key to much that is the most valuable intellectual and literary treasure of the world.

But not the least, perhaps the greatest superiority of Greek literature is in what is usually called its style—the quality which Mr. Lowell has lately reminded us, is "the only warrant of permanence in literature." By this term is not meant the mere artful use or arrangement of words and sentences, or any devices or conceits of expression. Greek literary art is moral in its qualities. It consists in the simple honest adaptation of language to its proper use and ends. We hear often such phrases as "classic tinsel," "classic formalism." No one who knows Greek literature has failed to see the Greek literary art. Greek literary taste proscribed, in theory and practice, all mere ornaments of language, all verbal tricks or expedients, and sought to present thought in natural, simple, noble forms alone. To speak or write classically, is, in truth, to speak or write, above all things, with the most direct reference to the simple setting forth of thought; of tinsel, of formalism, Homer, Æschylus, Thucydides, Demosthenes, Plato, give us absolutely nothing.

But the Greek literary spirit went deeper than this. It imposed and developed a moderation of tone, a justness of judgment, a measure and response of feeling, a proportion of treatment on all subjects, for which there is no other present term of description than *classical*.

Here, then, are the studies and examples which are fit to train the youth of all times and nations in the noblest forms and uses of language, to teach and enforce true literary art and taste,—which ever consists in using language for the direct, attractive and powerful expression of ideas.

I state these results of an examination of the Greek literature, and language, and the most ample proofs might be given by examples if time sufficed. But perhaps I may be allowed to illustrate the genuine simplicity and directness of Greek thought, even in poetry, in contrast with modern, by a single example.

The passage near the close of the Eighteenth Book of the Iliad which describes the newly-forged armor of Achilles, the workmanship of Vulcan, and the gift of Thetis to the ideal martial hero of the Greeks, has long been reckoned one of the finest in classical literature. In closing his famous seventh of March speech, Mr. Webster, alluding to the vast extent of our territory, said: "We realize on a mighty

scale, the beautiful description of the ornamental border of the buckler of Achilles."

"Now, the broad shield complete, the artist crowned
With his last hand, and poured the ocean round;
In living silver seemed the waves to roll,
And beat the buckler's verge, and bound the whole."

This is Pope's paraphrase, I will not say translation, of two lines of Homer's description of the shield of Achilles, and it is a striking illustration of what Mr. Arnold calls Pope's artificial, intellectualized, literary manner and language.

Now in contrast with this, let one read the original lines of Homer :

*Ἐν δ' ἐτίθει ποταμοῖο μέγα σθένος Ὠκεανοῖο,
ἀντογα πὰρ πυμάτην σάκεος πόκα ποιητοῖο.*

and he will know what is meant when it is said that simplicity and plainness of expression are found in the highest degree in Homer, and how by the simplest means the Greek genius reached the highest and noblest results in poetry.

Mr. Adams gives us a list of English authors whom he holds up as worthy to supersede the Greek authors, who now represent for us the Greek literature, but there are not more than two or three among them all, who do not owe the training which gave them their mastery of the English language to studies of the classical languages and literatures. This is true, equally true, of any similar list of great writers in German and French. Goethe was a German-Greek. Voltaire was a French-Greek. I do not mean to say that in later times great writers have not appeared who, out of the existing materials of modern languages, have wrought the most valuable results, without any direct knowledge of the classical languages. But I lay it down as a truth which can not be shaken, that no man ignorant of Greek can read any great English, or German, or French author—for example, Shakespeare or Milton, Pascal or Voltaire, Goethe or even Schiller—with the same pleasure and full appreciation, as if he had once been trained to a fair knowledge of the Greek language. To confine our studies to modern tongues, is to cut ourselves off from an acquaintance with the sources of a great part of the richness, the power and beauty of all that is great in modern literature. I trust I am not, more than Mr. Adams, pleased with literary formalism and tinsel, or the poor imitations of Demosthenes and Cicero which he satirizes. I think plain, direct honest English is the highest need of our times in language and literature. The words of St. Paul are applicable here: "I had rather speak five words with my understanding than ten thousand words in a tongue." Better the

plainest, most untaught English than all formal imitations of the highest models. But to follow Homer, to know and be influenced by Homer, is to speak with a directness and simplicity which scarcely any modern writer would dare to observe. To write as Thucydides wrote, to speak as Demosthenes spoke, is to reject ornament, to spurn verbal cunning and contrivances, and to hold the whole mind intent only on the clearest, directest expression of thought. A true revival of the classic spirit, a true *renaissance*, would give us back some part of the austere beauty, the severe simplicity, and the majestic power which modern literature generally lacks.

And Greek discipline and taste were not confined among the Greeks—in their nature they could not be confined—to letters alone; they displayed themselves not less notably in architecture, painting and sculpture. The only great sculpture which the world possesses to-day, I think it correct to say, is Greek—the product either of ancient Greek hands, or of those of later days who caught their whole spirit and power from studies of Greek art. Michael Angelo was as true a Greek in spirit as Phidias or Ictinus; and his sculptures which one sees now in Italy are simply the works of a great Italian-Greek of the fifteenth century.

When, therefore, any one declares that he prefers the German tongue and its literature to the Greek, “whether viewed as a thing of use, as an accomplishment, or a source of pleasure,” I can only reply that as a matter of fact, the German tongue and its literature, like all the cultivated modern tongues and literatures, is widely and deeply pervaded by the influence of Greek and classical studies. Goethe, its greatest literary name, was as true a Greek as Michael Angelo; and it is Goethe, too, who has said, “I wish all success to those who are for preserving to the literature of Greece and Rome, its predominant place in education.”

I have hitherto spoken exclusively of Greek because it is upon Greek that the chief attack is apt to be made. But in all the qualities which make up the value of Greek for our educational uses, I feel bound to say, I put Latin unquestionably next. As a language, merely, as a study in the art of expression, it can be placed second only to Greek, while as a literature, a record of expressed thought, I know no names in French or German literature which, in a just estimate I think, are to be put on the level with Cicero, Tacitus, Horace and Virgil. But I do feel that the modern languages are apt to be undervalued, and I also feel that a larger place is due to these studies in our academies and colleges, and that more space can be allowed them without injury to the classical course.

Other considerations and arguments of equal weight and value must be omitted here; but I can not forbear to say again, that it is with special regard to the characteristics of modern life—the life which now surrounds us; it is in reference to that life with which we are now associated, that I should most earnestly oppose the proposition to abandon or curtail, or make optional these studies; for I take issue with the idea that is sometimes expressed by saying: “When one is given work to do, it is well to prepare one’s self for that specific work.” I say, no college student has any “specific work” given him, in this sense, to “prepare for.” No college student knows, or can know to what work life will call or direct him. If it be true, as I think it is, of other periods of our lives, that

“The world is too much with us; late and soon
Getting and spending, *we lay waste our powers*,”

it is important, beyond estimate, that the period of student life should be guarded from the premature intrusion of the cares and preoccupations which soon enough will fix the nature and limit of our activities, if they do not narrow the outlook and darken the pathway of life.

Therefore, there is in my judgment no study so valuable, so exactly adapted as a preparation for the work to be done in public or private life, here in America to-day, as the study of the Greek language and literature; and I have the conviction that this study is, and will be, whether it remain a part of our prescribed courses or not, the real basis and test of culture, of that mental training and equipment which distinguishes the educated from the uneducated, or partly educated— as surely as gold is and will be, whether statutes ordain it or not, the world’s real measure of pecuniary value. No bustle of business no din of progress, no clamor of politics nor pride of science, I have perfect faith, will ever, for long overbear the spirit in man to which poetry, oratory, philosophy and literature answer; and so, finally, it must result that this study now described in a few high places, as a “fetish” will be more ardently pursued, more wisely taught, more intelligently valued by all those, whether in academical or practical life, who believe that the highest secular guaranty of the strength and permanence of our civilization is the diffusion of sound and thorough liberal education.

The great English critic, philosopher and man of letters, whose recent loss I am sure all men of liberal mind deplore, in his last word of our nation, gives us credit for a large relative measure of the faculty of straight seeing and clear thinking. He could have given us no higher praise. It is to that faculty, I make my present appeal. The fashion of the day changes, and will pass away; but the studies of

which I have spoken, partake of "the eternal substance of greatness." And so let me close with another noble word of Mr. Lowell :

"The garnerers of Sicily are empty now, but the bees from all climes still fetch honey from the tiny garden plot of Theocritus. On a map of the world you may hide Judea with your thumb, Athens with your finger-tip, and neither of them figures in the 'prices current;' but they still lord it in the thought and action of every civilized man. Did not Dante cover with his hood all that was Italy six hundred years ago? And if we go back a century, where was Germany outside of Weimar? Material success is good, but only as the necessary preliminary of better things. The measure of a nation's true success is the amount it has contributed to the thought, the moral energy, the intellectual happiness, the spiritual hope and consolation of mankind."

XIV.

Report of the Committee on Necrology.

By Assistant Secretary **ALBERT B. WATKINS**, Office of Regents.

The necrological record of the past academic year furnishes an unusually long list of names, and each grade of educational work in the State has contributed to swell the number.

The Board of Regents has lost Elias W. Leavenworth, for twenty-six years an active and efficient, and at the time of his death the senior member of the Board. The memorial minute prepared by Vice-Chancellor Curtis, and read at the annual meeting of the Board in January, 1888, will be published with the proceedings of this Convocation.

From the State Library has gone Henry A. Homes. A graduate of Amherst College and of the Andover Theological Seminary, he taught and did missionary duty for many years in Asia. For more than thirty years of his later life he gave to the State Library the benefit of his unique experience and remarkable linguistic and bibliographical taste and attainment, and did valuable and permanent work which will be felt in its real educational value through the library and its users for all time to come.

The colleges of the State have been the greatest losers by death during the past year as shown by the following names: Henry W. Hyde, professor in the medical department of Syracuse University, also for many years president of the board of trustees of Cortland Academy and later of the local board of the State Normal School at Cortland; Jonathan Pearson, professor and treasurer at Union College; Ethan B. Larkin, professor of natural history in Alfred University; George W. Huntsman, professor of philosophy in the College of the City of New York; and Walter R. Brooks, professor of natural history in Madison University. Ex-Principal A. C. Winters, formerly principal of Cook Academy, and Charles Linden, professor of natural sciences in the Buffalo High School, so far as we have learned, are the only representatives that have dropped from the ranks of the secondary schools.

Of those who have gone during the year four had long been prominent and efficient factors in the general educational work of the State;

Jonathan Tenney, formerly Deputy State Superintendent of Public Instruction; Edward Danforth, also formerly Deputy State Superintendent of Public Instruction and for many years prominently identified with the State Teachers' Association; and Francis P. Lantry and James Johonnot, who for a long period were intimately associated together in conducting Teachers' Institutes throughout the State, both of whom were singularly well adapted for this difficult and exacting sphere of labor, and whose influence in this field was a source of great inspiration to all who taught or intended to teach in the common schools who were so fortunate as to come within the range of their instruction.

The three following distinguished names we feel should be included in this report, because the work and influence of each were in various ways connected with the educational interests of the State; John P. Gray, medical director of the State Lunatic Asylum at Utica, and professor of psychological medicine in the Albany Medical College; Laurens P. Hickok, formerly professor of psychology and president of Union College; and Asa Gray, whose text-books in Botany are extensively used in the schools of this State, whose education was received at Clinton and at Fairfield, and whom the State of New York is proud to claim as one of her sons.

Suitable memorial notices have been prepared for nearly all whom we have mentioned above.

REGENT ELIAS W. LEAVENWORTH.

[Extract from the minutes of the Board of Regents, January 12, 1888.]

Annual meeting of the Board held in the Senate Chamber.

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The Chancellor announced the death of Regent Elias W. Leavenworth, and the Vice-Chancellor offered the following memorial minute:

The Board of Regents of the University of the State of New York desire to place upon their minutes a permanent record of their high respect for their late official associate and friend, Elias Warner Leavenworth. He was born in Canaan, New York, December 20, 1803, and was prepared for college at the Hudson Academy, entering the Sophomore class at Williams in 1820, but removed to Yale, where he graduated in 1824. He then studied law with William Cullen Bryant in Great Barrington, Massachusetts, and at the Litchfield Law School in Connecticut, and in 1827 after a short residence at Utica under the advice of Joshua A. Spencer he removed to Syracuse. In 1829, he was elected a trustee of the village and then president. In 1841, he was brigadier-general in the State militia; in 1850 and 1856, a Mem-

ber of the Assembly. In 1849 and 1859 he was mayor of Syracuse, having also held responsible offices under its town government. In 1860 he was a quarantine commissioner and in 1861 he was nominated by President Lincoln a commissioner to adjust claims against New Granada, in 1872 he was a member of the State Constitutional Commission, in 1875-6 he was a representative in Congress, and for twenty-six years he was a member of this body and the Senior Regent when he died.

General Leavenworth, as he is usually called, was a man of extraordinary public spirit, and he was intimately identified with the growth of the city in which he lived. In its business interests, in its bold enterprises, its humane institutions, its civic life, he was always among the foremost citizens. The respect and confidence of his townsmen constantly entrusted him with important tasks, and his performance of them was never perfunctory. His zeal was sincere, his intelligence great, his judgment sound, his activity incessant.

In the office of Secretary of State, he was eminently efficient and active. In this Board he was vigilant and sagacious, full of wise and generous suggestions. Of a masterful temperament he was tenacious of his own views and he maintained them with great independence and ability, but his mind was open and hospitable to every form of progress and he bore himself always with unfailing courtesy. To the last he was singularly alert and energetic, health unbroken, his interest untiring. In old age he was still young, and by his public activities and his personal character, his associates of this Board gratefully feel themselves cheered and stimulated. The State loses in him one of the men who make the strength of States, and his immediate community a citizen most worthy of emulation.

He drew the bill for the organization of the State Board of Charities and for the equalization of the State tax among the rural counties, and was always one of the most devoted and intelligent friends of education in the State.

Remarks were then made by Regents Bostwick and Watson, and by the Vice-Chancellor, as follows:

REMARKS BY REGENT BOSTWICK.

MR. CHANCELLOR.—There are but few men living to-day who have been so long and intimately connected with the various departments of our State government as was the late General Leavenworth. He was better informed on the legislative, political and educational history of the State than any man I have ever met. For more than forty years he has been the direct representative of the people, and

whether as president of his village, mayor of his city, in the State Legislature, Secretary of State, or Representative in Congress, his influence was felt in every position which he occupied.

He was a man of broad views, and thoroughly practical in his ideas. General Leavenworth was always on the side of progress and good government. He possessed an intense State pride, and promoted many of the enterprises which have given glory and honor to the State. He was ever foremost in matters of education, as the record of his work in the Board of Regents for more than a quarter of a century attests. He was generous and patriotic, and of him it may be truly said: "He loved his country and his fellow-man."

We shall miss his genial presence and his wise counsels in this Board. He left the impress of his character upon the works he had in hand. His labors never ceased till his great heart ceased to pulsate. He died in the fullness of mental vigor, at an age beyond the allotted threescore and ten. His life was full of good works, and his memory will be cherished for the many noble traits of character which were exemplified in his long and useful life.

REMARKS BY REGENT WATSON.

MR. CHANCELLOR.—After the very eloquent tribute to which we have listened this evening, I trust that it may not be considered unbecoming in me (representing with my distinguished colleague, ex-Senator Kernan, as I do, the city where Regent Leavenworth commenced the practice of his profession, and from which, on the suggestion of that eminent advocate of Utica, Joshua A. Spencer, he removed to Syracuse, his future home, where for sixty years he remained one of its most conspicuous citizens) to make a few brief remarks upon the life and character of our lamented associate.

The senior member of this Board, by his devoted attention to its interests, his never-failing attendance upon its meetings, and his uniform urbanity of manner, conjoined with many other eminent qualities of mind and heart, he greatly endeared himself to all his associates.

Comparatively few, indeed, Mr. Chancellor, even among those who have had opportunity for the highest culture in their earlier years, are the men, eminent in business, politics, law or medicine, who, amid the hurry, the bustle and confusion, the ceaseless push and wear and tear of our modern life, resolutely and daily snatch a few brief moments from the rapidly fleeting hours to return to those studies which, in the language of the greatest of Roman orators, "are the ornament of prosperity, the comfort and refuge of adversity, and

the solace and delight of old age." Such a man, however, was our lamented colleague.

Amid the engrossing cares and wearing anxieties of even the most active period of his busy political and professional life, he yet found time to make not infrequent excursions into the realms of literature and art and to gather thence those flowrets of culture and of taste, the sweet perfume of which will ever linger in the memory of those who were so fortunate as to have enjoyed his intimate acquaintance.

Mr. Chancellor, in this, as well as in many other traits of character, he was a bright and shining exemplar for the younger men of our generation.

The white snow of mid-winter (fit emblem of the purity of character of him who sleeps beneath) rests gently upon his recent grave, in that beautiful cemetery of which he was the originator and the greatest benefactor, of the fair city of Central New York which was his home, and which his wonderful energy, his great business enterprise and untiring industry, his "affluent taste and creative culture," had done so much to enrich and to adorn; and we may not inappropriately apply to our late associate the words inscribed upon the tomb of the great architect of St. Paul's Cathedral, Sir Christopher Wren, who, at the age of ninety (but six years older than our departed friend), was laid at rest in the crypt of his own beautiful church, "*Si monumentum requiris, circumspice.*"

Bis vixit, qui bene, was the saying of a most distinguished moralist of antiquity. Tried by this test, how far prolonged and how fruitful in good works appear the more than fourscore years of our departed colleague.

REMARKS BY VICE-CHANCELLOR CURTIS.

MR. CHANCELLOR.—Our little circle although always complete is always changing. Time may creep on with petty pace from day to day but it surely brings to-morrow, and to-morrow and to-morrow, with the only foot that never tires and never reaches a bourne. It seems to me but yesterday that I was the youngest member of this Board and now the death of Mr. Leavenworth leaves me, in date of election, the senior member. In the French academy each newly elected member, upon taking his seat, delivers a eulogy of his predecessor, and it is but a fitting duty to which you summoned me in asking me to prepare a brief minute upon our late associate. But it is not a ceremony only; it is an act of cordial friendship and high respect.

The distinguishing trait of Mr. Leavenworth seems to me to have been his public spirit. From his removal to Syracuse to his death he was always conspicuous in its good works of every kind. His untiring

energy, his quick intelligence, his warm sympathy and firmness and urbanity, were qualities of the utmost service in the rapid growth of the city. There are certain characteristics which mark the English gentleman, and Tennyson, as you remember in the familiar lines, says of his friend Arthur Hallam that he

"bore without abuse
The grand old name of gentleman."

The poet does not define the word. He appeals to the universal consciousness of the English-speaking race. In the same way Mr. Leavenworth's peculiar qualities and interests and devotion were such as distinguished the American citizen. He was in no sense a servile flatterer of the mob, nor in any way a panderer to vulgar prejudice. He did not hold mere popularity to be the evidence of genuine patriotism or effective public service. The test of sincere Americanism is not deference to the views of others. It is the unquailing courage of your own opinions.

During the later years of his life in which I knew him Mr. Leavenworth signally illustrated the difference between public service and political ambition. I do not mean, of course, that they are incompatible. Mr. Leavenworth had strong political convictions and warm party feeling. But his public interest and activity did not depend upon official position. As a private person he would have been a beneficent force in any community. He belonged to that class of Americans who by their characters and abilities are necessarily public men. Their views are sought; their counsels are heeded; their integrity commands confidence; their judgment molds local public opinion and their practical sagacity directs public action.

How well we recall, Mr. Chancellor, his vigorous good sense in the deliberations of this Board, his wide intelligence, his sound discretion. That hale and hearty figure, all unbowed by the snowy years, rises before me as I speak and that kindly courtesy seems almost impatiently to deprecate my words of praise. I saw a letter from our friend during the summer, in which he said "at eighty-four I feel none of the aches and pains of age." That tranquil citizen persistent in good deeds discredited Wordsworth's lines:

"The good die first
And those whose hearts are dry as summer's dust
Burn to the socket."

But how nobly at the end he illustrated those other lines of Wordsworth:

"But an old age serene and bright
And lovely as a Lapland night
Shall lead thee to thy grave."

HENRY A. HOMES.

[Extract from the minutes of the Board of Regents. January 12, 1888, 8 o'clock P. M.]

Annual meeting of the Board held in the Senate chamber.

* * * * *

The Chancellor announced the death of Librarian Dr. H. A. Homes, and a memorial minute prepared by Regent Fitch, in his absence, caused by illness, was read by Regent Bostwick and ordered recorded in the minutes of the Board as follows:

Henry A. Homes, for thirty-three years connected with the New York State Library, died at his residence in the city of Albany, on the 3d day of November, 1887. His long and faithful service renders it eminently proper that the Board of Regents, under whose sanction he labored, should place upon record its recognition of his worth; and yet so modest was his disposition and so unassuming was his life that the material for his biography is singularly meager and elusive. The years of his early manhood were consecrated to the cause of the Master in distant lands. His later years were mainly passed in the companionship of the books that he loved, but they are mute witnesses of the integrity of his scholarly devotion. Thus the circle of his intimacies with men was contracted by seclusion, and, as his pen essayed few ambitious themes, his fame was far from commensurate with his merit. They, however, who were acquainted with his work, as were the officers and the Library Committee of the Board, had genuine respect for its range, its variety and its exactness; and they who knew him well had cordial love for that refined and sensitive nature which revealed itself in the scholar without vanity and in the man without arrogance. Guileless almost to simplicity, with a crystalline purity of thought and speech, deferential in his manner yet firm in his convictions, without self-assertion, save as through self the dignity of his calling might be exalted, more familiar with books than with men, he was at once the model librarian and the Christian gentleman.

Henry Augustus Homes was born of excellent Puritan stock, in Boston, on the 10th day of March, 1812. He was sent, when ten years old, to Andover Academy, then in the first flush of its advancing reputation and, four years later, he entered Amherst College from which, in due course, he was graduated with the class of 1830. In college he maintained an honorable standing, received a commencement appointment, and was well regarded by faculty and students.

After leaving Amherst, he studied theology for three years at Andover Seminary, and medicine for two years at the Yale Medical College. From thence he went to Paris, where he pursued the study of the Arabic and other Oriental tongues, and in 1838, with the three-fold equipment indicated, he offered his services to the American Board of Foreign Missions, and was by it assigned to Constantinople. Here he spent twelve years in the work of evangelization, and as subsidiary to it, in the study of Oriental tongues, into which he translated many English religious books, tracts and newspaper articles. He taught and preached and traveled extensively throughout the East, and contributed to home periodicals numerous valuable papers bearing upon the ethnology, the geography, the history, the manners and customs and the religious observances of the countries which he visited. He thus became an erudite linguist and an authority upon subjects of which he treated. In 1850, he resigned his connection with the American Board, and the next three years were passed in the service of our Government, as *chargé d'affaires* at Constantinople, for which he was especially well equipped by his previous studies and pursuits. That his duty in this regard was satisfactorily performed, his knowledge, his experience, and the uniform courtesy of his address sufficiently attest.

In 1853 he returned to America, and in September 1854, he was made assistant librarian of the State Library, succeeding the late Alfred B. Street as librarian of the general library, April 22, 1862, in which position he remained until his death. The record of Dr. Homes's administration of the library is one of supreme dedication to its development along the lines which the Board approved, mainly at his suggestion. Very appropriately we may here insert a portion of the beautiful and appreciative tribute paid to his memory by Mr. George W. Kirchwey, before the Albany Institute, of which Dr. Homes was one of the members. Mr. Kirchwey says :

"What rare combination of moral and intellectual qualities were required to develop the general library of the State from a miscellaneous collection of 25,000 books into an orderly, harmonious arrangement of 100,000 selected volumes, to put this great collection into the foremost rank among the great libraries of the country and to maintain it there, can be but imperfectly set forth. Here, at any rate, he found full scope for the exercise of the admirable conservative qualities with which nature and all the experiences of his previous life had endowed him. He entered upon his task in the library in the same spirit of devotion, with the same temperate but unquenchable zeal with which he had carried on the work of Christianizing the Orient.

He was industrious beyond the industry of younger men. He labored incessantly. Like the stars, and too often when they were visible in their courses, he pursued his vocation 'without haste, without rest.' He had no avocation. In fact, a study of his career, in the library yonder, may well dissipate the impression, which has somehow gone abroad, that a librarian is a person of great leisure; that his office is the earthly realization of the *otium cum dignitate* idea. Let that thought perish in the presence of this man of letters, who yet had no time to write, this laborious scholar who had not leisure to inscribe his name in the annals of scholarship, this student whose time was not his own."

This is a just estimate and confirms fully, yet tenderly, that which to the superficial apprehension may seem the incompleteness of his intellectual development. With the ample opportunity which has awaited upon historians, like Prescott and Motley, and Bancroft, upon philologists like Marsh and Whitney, he might have made contributions to each or both of those departments of knowledge; but his soul was in the library of which he was the custodian, in the books he cherished. With insufficient funds at his disposal—the appropriations for the library being far from creditable to the State—he admirably systemized and enlarged it, especially in the direction of *Americana*, of which it now contains one of the best collections in the country. It is almost wholly due to his foresight and vigilance that it embraces among others, the papers of Governor George Clinton, of Governor Tompkins, of Sir William Johnson, and those of Henry Stevens relating to the history of Vermont before its separation from New York. Whilst he was a bibliophile, ardent in quest and serene in possession, he was never betrayed into the frenzy of the bibliomaniac. A book with him was something to use, and not merely to inspect. A library, he believed, should be a work-shop of knowledge, and not a museum of curiosities. Hence, in a prudent husbanding of resources, he cared little to purchase a rare edition or an unique binding of a standard author, but he cared much to obtain a musty manuscript of a forgotten pamphlet which would add to the stock of information or solve some vexed historical issue. Greatly would he have preferred a page of the crabbed lines and uncouth drawings of Samuel de Champlain to the choicest Elzevir that has survived the lapse of years. Thus he was never the slave of his books but always their master. Thus, it was almost uniformly safe for the Library Committee to follow his advice, sagacious, disinterested, practical.

By the courtesy of the Albany Institute, we are permitted to insert here the following papers read at a memorial meeting of the Albany Institute, held on the 6th day of December, 1887, in commemoration of Dr. Homes:

By GEORGE W. KIRCHWEY.

Henry Augustus Homes was born in Boston, on the 10th day of March, 1812. He was of the royal blood of New England, sprung from one of those sturdy families whose roots run back into the heroic ages of our history. His father was a wealthy, benevolent, Boston merchant, a pillar of the old Park street church, devout, upright, generous and just. His mother was a noble example of New England womanhood, full of intelligence, kindness and piety. Out of the earnest, refining influences of such a home, at the early age of ten, young Homes was sent to Andover to prepare for college; and in 1826, when only fourteen years of age, he entered Amherst College.

He pursued his course in college with such success as he craved. He was not ambitious for the ordinary distinctions of a college career, and cared still less for those which depend on that mysterious quantity called popularity. He read much and thought more, and although he carried off few of the honors for which men strive in college as elsewhere, he did not fail to gain those more difficult, because more intangible and greater honors which come unsought. He was regarded by his classmates as well as his teachers, as a boy of unusual mold. He had a certain unique popularity, in which respect for his manly qualities and an appreciation of his striking intellectual personality, were perhaps the largest ingredients. He won his share, too, of those college friendships, which abide with a man through life, and these were a source of unfailing pleasure and inspiration to him to the end.

One who knew him well in college (Professor Tyler of Amherst) gives a graphic account of him as he appeared in those days: "He had a species of dry wit, sometimes shading off into drollery and sometimes inclining to good-natured satire. His words were few, his sayings brief, pointed, not unfrequently aphoristic. He was an original, unlike any of his classmates, different from other men generally. He had a mind of his own, a will which was wellnigh inflexible, opinions which were not easily changed. Introverted, absent-minded, more or less moody and solitary, naturally reticent, but, when he did speak, outspoken, frank, fearless, generous and just, he made few acquaintances or friends, but those few were strongly attached to him." How true it is that the man is but the child larger grown! This picture of the school-boy of seventeen is substantially the same as that which the man who has but now gone out from us had, in

more than half a century of beneficent life, in larger, firmer lines, engraved upon our memories.

At that same early age he displayed also those qualities of liberality and kindly helpfulness which will at once be recognized as permanent traits of his character by all who knew him at any time during his life. Although the son of a wealthy and generous father and having more money than any other member of his class, it is recorded of him that "he put on no airs, made no pretensions, spent no more on himself than others did, but was always liberal in gifts to his society, the class, the college, to all who were in need." His last act on the day of his graduation is cited as characteristic. It was to "put his hand into his pocket and liquidate some unforeseen expenses of the class at commencement." He had an honorable though not a distinguished part on the commencement stage. The subject of his oration — "unique like himself," as a fellow-student has characterized it — was *Temperament in Genius*, a theme the mere selection of which for that supreme occasion in a boy's life, showed the self-reliant and original as well as the meditative cast of his mind.

We have dwelt so long upon these four short years of college life, not because of their intrinsic importance in the life of Dr. Homes, not because of the space which they filled in the chambers of his memory throughout that life, but because of the revelation which they afford of his nature, his mental and moral tendencies, the sources of his inspiration, the rooted elements of his character. In these essential respects he seems to have changed less than most men do, or perhaps in these respects he was a man long before he had ceased to be a child. Certain it is that this boy of eighteen, as he stood on the threshold of life, had the thoughts, the habits of mind, the set purpose, the grave, quiet demeanor, the generous impulses, the purity of thought and deed, the true nobility of soul which we have all known and gratefully recognized in the friend whom we have lost.

After leaving college he was in no haste to embark on a professional career, nor even to decide definitely what course of life to pursue. He seems to have had no strong leaning toward any of the money-getting pursuits, and certainly had no ambition to shine in any profession. While not in the least degree indolent, he had a good deal of the habit of mind which predisposes a man to await the summons of God or man to his career, and for a long time he waited in vain. He went — as the fashion then was — from Amherst to Andover Theological Seminary, and thence in 1833 to Yale College, where he spent two years in the study of theology and medicine. He then went abroad, lived for a year in Paris, too deeply engaged in the study of

Arabic to become at all enamored of the gay life of that city, and then in 1838 offered his services to the American Board and went as a missionary to Constantinople.

It is not known when he first formed the design of devoting his life to the mission cause, but it is probable that it was with this end in view that he went from Andover to Yale, in order to add medicine and some knowledge of the Oriental tongues to his theological equipment. However this may be, he had no sooner resolved upon this career than he threw himself into it with characteristic energy and devotion. His preparation for it was deliberate and thorough. He entered that difficult field admirably equipped, prepared at every point, full of zeal and high purpose. His influence was felt at once in every department of the work of the mission. He preached and taught in more than one of the Oriental tongues whose sounds are heard in that polyglot city; he held daily conversations on personal religion with the natives of various creeds and nationalities; he taught classes of Turks and Arabs to speak English; he practiced the healing art among them. It is recorded that he shrank from no duty and hesitated at no sacrifice.

He early discovered that the great need of the mission was a steady supply of fresh, vitalizing religious literature, and he at once turned his attention in the direction of meeting this want. During nearly the whole period of his fifteen years service in that field he made this department of the work his own. He wrote, translated, published and distributed religious books, tracts and papers incessantly; he became the business manager of the mission, and he found time for all this additional labor without interrupting the work of preaching and teaching and learning which had first engaged him.

Though stationed at Constantinople he traveled extensively over the Turkish Empire. In 1837, he traveled in Syria, visited Beirût and Jerusalem, and spent several months in Damascus studying Arabic. In 1839, he went on an exploring expedition with Dr. Grant among the Koords and in Mesopotamia. Wherever he went he was a careful observer and faithful student of the institutions, character and condition of the people. His letters and journals, of which copious extracts were published in the *Missionary Herald* during all the years of his missionary life, are full of valuable and interesting information regarding the geography, history, manners, morals and religion of those countries which are so rich in classical and sacred associations, while at the same time they illustrate his varied and unwearied labors in his missionary work. A letter from the Armenian Christians, as his friend Professor Tyler informs me, "bears strong and cordial testimony to the wisdom, zeal and enthusiasm with which he discharged

his duties in various departments, and particularly in the preparation and circulation of religious books and in the instruction of youth."

At length, after some fifteen years of faithful labor, interrupted by only one visit to his native land in 1842, he passed by a natural transition from the service of the Missionary Board in Constantinople to the service of the United States legation in the same city, for which by all the experiences of those fifteen years he was peculiarly qualified. He served the legation with fidelity and success as *chargé d'affaires*, during the three ensuing years, until, in 1853 he returned to America to take up the thread of his life again in his native land.

He was now forty-one years of age, at the height of his powers, ripened by travel and experience, enriched by self-denying labor and sacrifice in the greatest of causes, with an honorable career rounded out with noble achievement behind him. But it was not until he had finally turned his back upon the first period of his active career, distinguished as that had been, that his true vocation disclosed itself. In 1854, the year after his return from Turkey, he received the appointment of assistant in the New York State Library, becoming in 1862 the librarian of the general library, a position which he held to the time of his death. What fortunate inspiration guided the trustees of our State library to this faithful but unwearied servant of the Most High, this quiet scholar in his retirement in Boston, we do not know; but certain it is that never was wiser choice made. It is no disparagement to his learned and able associates to say, that from the day of his entrance upon his labors in the library in a subordinate capacity, he became its presiding genius. From that day to the day when the hand of death was laid upon him, a period of over thirty years, he guided its policy, inspired its development and directed its energies. As it stands there to-day, it is his eloquent monument.

What rare combination of moral and intellectual qualities was required to develop the general library of the State from a miscellaneous collection of 25,000 books into an orderly, harmonious arrangement of 100,000 selected volumes, to put this great collection into the foremost rank among the great libraries of the country and to maintain it there, can be but imperfectly set forth. Here, at any rate, he found full scope for the exercise of the admirable conservative qualities with which nature and all the experiences of his previous life had endowed him. He entered upon his task in the library in the same spirit of devotion, with the same temperate but unquenchable zeal with which he had carried on the work of Christianizing the Orient. He was industrious beyond the industry of younger men. He labored incessantly. Like the stars — and too often when they

were visible in their courses—he pursued his vocation “without haste, without rest.” He had no avocation. In fact, a study of his career in the library yonder may well dissipate the impression which has somehow gone abroad that a librarian is a person of great leisure; that his office is the earthly realization of the *otium cum dignitate* idea. Let that thought perish in the presence of this man of letters who yet had no time to write, this laborious scholar who had not the leisure to inscribe his name in the annals of scholarship, this student whose time was not his own.

Apparently he had no temptation to labor, no ambition to strive for laurels, in other fields than his chosen one. He magnified his office, was content with its labors and satisfied with the rewards which they brought him. In fact, Dr. Homes was a born librarian. He was not a learned man in the modern sense of the term; he was not distinguished for profound researches in any department of human knowledge; he knew no one thing so well that he could know nothing else; he had not accumulated such a mass of microscopic facts that the perspective of ordinary facts was destroyed. Without presuming to disparage in the least that minute study of nature and man which has in our time revolutionized half the sciences and is now revolutionizing the remaining half, it will be conceded that Dr. Homes gained in range of information, in breadth of view, in flexibility of mind, what he lost in intensity of observation; that he was not less great as a librarian by virtue of his exclusive devotion to the exacting duties of his well-loved profession.

This is a matter of no little importance in these days, when even the chiefs of great libraries look outside of the library field to special lines of activity and research for a more enduring fame. It may well be doubted whether a man is a better librarian by virtue of being a distinguished historian, or editor, or philosopher; whether, indeed, success in a special line of intellectual activity or devotion to a particular branch of human knowledge is entirely compatible with that broad and catholic, yet discriminating knowledge of books which it is the peculiar province of the librarian to illustrate.

This intimate and yet comprehensive knowledge of books, Dr. Homes possessed in an eminent degree. His interest ranged as wide as the printed word, and his vision kept pace with his interest. All arts, all sciences, all literatures were his province. Nothing escaped him. He knew by an unerring instinct the best books, the books that were destined to survive, in all languages and in all departments of knowledge. On the other hand, he never fell a victim to the fatal confusion of mind of Goethe's traveler who saw not the forest by reason of the

wilderness of trees about him. While preëminently a man of books, he never lost the library in the volumes which he accumulated on its shelves; he never forgot that the books he sought were to take their places in the ranks of the great army of occupation which he was marshaling and for which he was recruiting.

Then, too, he was a genuine bibliophile. He loved books and the atmosphere which emanated from them, but he loved them wisely—not too well. With abundant means, and with unrivaled facilities for the gratification of the master passion of the book-lover, he left behind him but a meager private library. The unique volume, coveted by the collector, appealed to him in vain; while the sorry pamphlet caught up out of the ruin of a lost cause, claimed his instant allegiance. He was too sane, too disinterested ever to become the slave of his books. In these, as in other respects, he was preëminently fitted for the place which he so long and honorably filled. The mere human book-worm is almost as much to be dreaded in such a position as is his insidious prototype among the leaves. The man with a hobby, the specialist, the collector, the worshippers of tooled-edges and book-plates, are all alike to be shunned. If they do not belong to the hateful *profanum vulgus*, against whom the doors of all sanctuaries are closed, they are yet, by virtue of their ruling passion, conspicuously unfitted for the labor which the late chief of our great library so ably performed through a generation of laborious years.

This combination of qualities, which Dr. Homes possessed in so eminent a degree, is very much rarer than we are apt to imagine, and as valuable as it is rare. If there exists such an emanation from the Universal Intelligence as the library *Genius*, it can be nothing else than a subtle combination of that comprehensive range of vision, that unerring instinct, that fine sense of fitness and proportion, that catholic yet chastened love, that industry quickened by zeal, which were never more harmoniously joined than in the subject of this imperfect tribute.

With what an exclusive devotion Dr. Homes confined himself within the round of duties of his vocation has been referred to. What he might have accomplished in the field of letters, if he had allowed himself to stray into that alluring path of life, we are forbidden to know. That he had the literary instinct, the habit of mind which predisposes a man to express himself into letters, no one who came into contact with him could fail to discover. The few stray leaves which fell from his table gave evidence of his possession of several, at least, of the qualities which lead men to the heights of literary success. Along with a richly stored mind went powers of acute

analysis, close observation, shrewd reflection, industry and judgment in research, and clear and lucid statement. His style was excellent, dignified yet rapid, and his logic invincible. His few scattered writings—scattered at wide intervals along the years and in ephemeral forms—won instant recognition from the masters of the subjects he treated. The wide sweep of his interest and scope of his information are well illustrated in these rare pamphlets, in which he ranges from Mesopotamian missions to Numismatics, and from local history and genealogy to library economy.

There are those who, realizing his qualifications for a literary career, and failing to appreciate the true importance of the librarian's work in the world, have lamented his exclusive devotion to that work. One of these men—himself one of the leading historians and not the least among the librarians of America—said recently: "It is a pity that Dr. Homes did not write more. He might have made a name in the field of historical research." The nature of our rejoinder to this and all like regrets has been disclosed. We are not prepared to admit that our distinguished associate, who has gone out from among us, could have done more to make straight the crooked ways of humanity in any other path of life than that which he had so long, so faithfully and so successfully pursued.

He seems to have had not a trace of that vulgar craving for notoriety, from which not even all our great men are wholly exempt. He had no ambition to shine in the world, not even to become prominently known in connection with his library work. Of the many distinctions which attended his faithful service in the cause of learning, he valued chiefly the degree of *LL. D.*, conferred upon him, in 1873, by Columbia College, and in regard to this he wrote to his friend, Professor Tyler, that it was as unexpected as it was undeserved. "I have not the slightest idea," he wrote, "from whence proceeded the influence that had it bestowed on me. I think it such a mark of friendship that I wonder one's friends do not give him a chance to know who loves him enough to go out of the way to do something for him."

The men of this sort, who are content to do the chosen task faithfully and unostentatiously, who deem themselves unworthy of the honors which meaner men seek all their lives to gain, such men are not so common in the world that they run much danger of being overlooked. Accordingly Dr. Homes did not, especially during the latter part of his life, lack the satisfaction of appreciation and honor at the hands of those who were fitted to recognize his worth. The bed on which he lay those long months, waiting with resignation the

approach of death, was watched with anxious foreboding, not only by the faithful wife and son, and the friends of his hearth, but throughout the land by the men whom *we* would wish to breathe a regret over our graves — the men of letters and learning, scholars in high places, the presidents of our great colleges, the chiefs of our great libraries, all those who by the masonry of learning and the insight of wisdom and high service recognize those who are akin to themselves.

By HORACE E. SMITH, LL. D.

MR. PRESIDENT.—The opportunity of joining in this tribute to the memory and worth of Dr. Homes affords me a melancholy pleasure. My personal acquaintance with him extends only through the last decade; but that acquaintance was of a very pleasant character, and quite long enough to impress me thoroughly with his worth, and command my warm regard. In all my intercourse with him he was kind and courteous, and his whole bearing that of the cultured gentleman.

From my personal observation and the testimony of others, I judge that he was a man of liberal intellectual endowments and ripe scholarship. His character, it seemed to me, while not wanting in firmness and strength, was distinguished by singular transparency and purity. That he was faithfully and earnestly devoted to his duties, in whatever sphere his activities were employed, there can be no doubt. The decease of such a man is a severe loss to the world. True, the life-work of Dr. Homes was not such as to strongly attract the public gaze and rank him among the most conspicuous characters of history; but it may, nevertheless, have been a greater boon to the world, more influential for the best interests of humanity, than the deeds of many whose names have filled the trumpet of fame.

As in nature, so in human affairs, the noiseless forces are often the most effective. The earthquake and the tornado are noisy and terrific, but their force is insignificant in comparison with the silent rays of the sun, or the noiseless but resistless energy of gravitation. We study the record of the world's great battles, the rise and fall of dynasties, of empires and kingdoms, and call it *history*; but these are only the prominent incidents of history, the culminations and outward manifestations of potent forces, which for a longer or shorter period had been silently preparing the way and pressing to their issue the great events. To the quiet workers in the domain of letters, of science, the arts, benevolence or religion, men of pure motives and noble purpose, is the world often more indebted for its advancement in civilization, in its grand achievements, than to the more distinguished

historic characters who have worn the crown of civic or military honor.

It is no extravagance to say that the death of such a man as Dr. Homes is a public calamity. I said the *death* of such a man. "Death" is an unfortunate term. In the higher and truer significance of what the word is used to express, it is a misnomer. To the Christian, at least, the words of Longfellow are no less true than beautiful:

"There is no Death! What seems so is transition;
This life of mortal breath
Is but a suburb of the life elysian,
Whose portal we call Death."

The term is more befitting Paganism than Christianity. I much prefer the old Hebrew expression — "He slept with his fathers;" or, better still, the exquisitely tender utterance — "He giveth His beloved sleep." But, to my own mind, neither "death" nor "sleep" conveys a just idea of the exchange of worlds; "*transition*" is the better term. Whether quite orthodox on this point may be questionable, but I am unable to entertain the thought that the soul, the immaterial and immortal part of man, will ever be in other than a state of conscious existence. "The rest that remaineth" is not, I think, the rest of unconsciousness or of idleness; it is the rest of perfect freedom. All the faculties of the soul, with their incalculable possibilities, will not be less active when freed from the fetters of this corruptible body. We may, then, think of our departed friend as living in the full freedom and light of the Heavenly world. But he is not wholly lost to this world. He still lives in his worthy example and in the influences which his life-work set in motion; influences that will continue to bear fruit long after his mortal remains shall have returned to dust.

While visiting the museum of Brown University a few years since, my attention was directed to a relic which interested me more than all else I there saw. It was simply the root of an old apple tree, but it had a history. It was taken from the grave of Roger Williams on the removal of his dust from the place where his body was originally deposited, long after that body was resolved into its native element. At the time of his burial an apple tree stood at the head of his grave, and one of its roots, seeking nourishment and guided by a mysterious instinct of vegetable life, made its way downward, penetrated the coffin and fed upon the decaying remains. It passed down the trunk, then dividing into branches, moved along the limbs to the feet, and there, turning upwards, continued its way to the extremities. The dry root carefully preserved in the museum, still repeats the story of *this marvelous process*. The nourishment thus sought and found was

sent up into the tree and there converted into fragrant blossoms and rich fruit. If the decaying and unsightly remains of this mortal body may be thus transmuted, how much more beautiful and precious are the flowers and fruitage of a "*life*" like that of Dr. Homes.

At a subsequent meeting of the Albany Institute, held on the 3d day of January, 1888, the following memorial paper was read :

By DAVID MURRAY, LL. D.

MR. PRESIDENT.—It was a matter of great regret that I could not attend the meeting of the Institute which was devoted to the memory of Dr. Homes. I would have been pleased to add a word in honor of one whom I had long loved and respected. The Albany Institute had good reason to reverence Mr. Homes's memory. Few within its membership had done so much as he toward rendering its meetings profitable and interesting. For many years he has been a constant and notable attendant, and the proceedings will often show the distinguished part he took and the important contributions he rendered. Dr. Homes was, in essential particulars, a scholar. In his early life he had acquired those habits of scholarly investigation which he maintained up to the end. He was accurate in his thought and his statement, and always had a very positive and decided opinion upon any question on which he had taken the trouble to make up his mind.

From the nature of his occupation he was a librarian. His mind took that bent early in life. In addition to the accurate knowledge which he had of some books, he had a workman's familiarity with all books. To him a book had its place not only on the shelves of the student, to be by him used in the daily routine of his life, but also its place in a permanent collection, where its use might be rare and unusual. Much study has been bestowed on the arrangement and cataloguing of books so as to make them available with the least expenditure of time and with the greatest advantage. Among those who had devoted thought to this problem, Dr. Homes was easily one of the chief. The New York State Library has grown to be what it now is largely through his wise and persistent efforts. He had charge of the general library for about thirty years. With one exception he was the senior of all the persons who at the time of his death were in the service of the State. He began his service in 1854, and two years after this, in 1856, the library contained in the *general library* 30,111 volumes, and in the *law library* 13,623 volumes; in all 43,734 volumes. At Dr. Homes's death in the Autumn of 1887, there were in the *general library* 94,526 volumes, and in the *law library* 39,867 volumes, in all 134,393 volumes. Of this increase it is safe to say that every

volume in the general library came under his personal attention and received his approval.

During this time the Legislature appropriated for the purchase of books till 1883 the sum of \$4,000 each year. Since 1883 the appropriation has been \$5,000 a year. Out of this sum provision is made for the increase not only of the general library but of the law library. A large part of this appropriation is required in both departments to keep up the serial publications, which form a material and important part of every library. During the last year ending October 1, 1887, the sum of about \$500 was expended for serials in the general library and \$925 in the law library, making in all about \$1,425 out of the entire appropriation of \$5,000. It is plain that the sum available for the purchase of ordinary books for a growing collection like the State Library is exceedingly meager, and the steady and continuous growth of this collection under circumstances so disadvantageous is a matter of great credit to those who have had charge of the increase. Many private gentlemen expend more in the increase of their collections than the State of New York on its library. If it had not been for the donations and exchanges with which this library has been favored, the increase would have been much less than now appears. The Legislature, in addition to the appropriation which it annually makes for the purchase of books, provides for the printing of a considerable number of documents pertaining to the business brought before it, and of all reports made to it. It also publishes volumes of the reports of the Supreme Court and the Court of Appeals, and volumes of the documents relating to the history of the colony and the commonwealth, and volumes of the Natural History of the State. These publications are to a greater or less extent distributed by the State Library under the authority of the Legislature among the several States and Territories of the Union. In return for this constant stream of benefactions which the great State of New York is pouring into all the other States she is receiving from them according to their ability the publications which they are issuing.

What is to a certain extent taking place with the State libraries of the United States is also going on with the great libraries of other countries. A constant interchange of publications is kept up year after year. In this way the State Library continues to increase, not only in the publications which are issued in our own country, but in the volumes which are issued by the governments of other countries. It was, I remember, an estimate made by Dr. Homes himself several years ago, that the State Library had received from foreign countries *books to a value of not less than \$50,000.*

I have mentioned this important matter of exchanges in this connection because I wished to give due credit to Dr. Homes for building up this mode of increase. I do not wish to imply that Dr. Homes is entitled to the entire credit. The interchange between the States is a natural and spontaneous growth which has sprung up from the circumstances and relations in which the States stood to each other. The foreign exchanges are, in a greater degree, the result of well directed effort which a number of individuals put forth. Perhaps the most conspicuous of these was M. Vattermere, who spent many years of earnest endeavor to establish a system of exchanges between the libraries of this country and those in Europe. On behalf of the New York State Library these endeavors were largely effectual through the support of the late Chancellor Pruyn, who exerted himself freely and vigorously in extending these exchanges. Many of the most important of the gifts from foreign governments, like the description of patents from the government of Great Britain, were obtained by the personal exertions of Mr. Pruyn. Dr. Homes appreciated fully this important source of increase and from the beginning exerted himself to place it upon a firm and permanent footing.

I think it is due to Dr. Homes to make mention at this point of his services in reducing to system the principles which ought to govern the growth of such a library as that of the State. It is plain that libraries must be conducted in accordance with the purposes for which they exist. Only a few libraries of the world can afford to attempt to collect all printed books. Most libraries must lay down certain limitations within which they propose to keep their efforts. The State Library was founded for the purpose of furnishing aid to the Legislature, the State officers, the courts of law, and the profession which practices before these courts. In these respects this library differs widely from the large and miscellaneous collections of books which compose such libraries as the Boston Public Library or the Chicago Library. In any case the purchases must be made with reference to the uses to which the library is to be put, and the amount of money which may be expected each year to be expended upon it. The limited amount of the annual appropriation for the purchase of books has made it necessary to select certain appropriate lines in which the increase should be made. Dr. Homes gave to this problem his earnest attention, and the directions in which the library has been growing are chiefly such as he has indicated.

My personal relations with Dr. Homes were such that I am sure you will allow me to make reference to them. In addition to his scholarly and professional characteristics, to which I have adverted, he was a

charming and entertaining friend. He was exceptionally well informed on a great variety of topics. His extended and intimate knowledge of foreign countries, his thoughtful and careful intelligence in relation to the events transpiring in our own country, rendered him a most interesting companion. It was impossible to encounter him even in the most casual way and for the briefest time, without gleanings from him something worth remembering. He was fond of a friendly chat, and was what may be called a most companionable man.

I shall miss him greatly; and you, Mr. Chairman, and you, members of the Institute, will all miss him greatly. He was one of those few men on whom you could implicitly rely, and faith in whom would never be betrayed.

LAURENS P. HICKOK, D. D., LL. D.

By DENIS WORTMAN, D. D.

In the death of ex-President Hickok the Christian scholarship of America loses one of its noblest ornaments and helpers. He was born in Bethel, Connecticut, December 29, 1798, and was graduated at Union College in 1820, having among his classmates Judge William Kent, Professor Tayler Lewis and Secretary William H. Seward. He was pastor of the Congregational church of Kent, and afterward of Litchfield, succeeding Dr. Lyman Beecher in the latter; and became professor of theology at Western Reserve in 1836, the same in Auburn Theological Seminary in 1844, and in 1852, with an established reputation as a teacher of young men, and an original metaphysician, author of *Rational Psychology*, he came to Union College as professor of mental and moral philosophy, and vice-president of the college. In this position he shared with President Nott much of the administration of the college—for a long time really bore the whole brunt and strain of it—and upon Dr. Nott's death, in 1865, was elected his successor, but resigned in 1868, when seventy years of age, as he had long proposed, in order to devote himself more strictly to literary pursuits, and especially the development of his theories of the sense, the understanding and the will, in their various applications to esthetics, morals, physics, psychology and theology.

His principal works have been the *Rational Psychology*, *Moral Science*, *Empirical Psychology*, *Creator and Creation*, *Humanity Immortal*, *Logic of Reason*; and a treatise, not yet published, has engaged his thoughts and studies for several recent years, which he has deemed of more consequence even than the others. We trust it may be brought out, even if not entirely finished, as from all accounts it is of striking originality and power.

Dr. Hickok was as profound a scholar as he was an original thinker; a veritable philosopher, but no less a sturdy divine; metaphysical to the marrow, yet one of the most genial of men, and clearest and strictest of preachers.

I judge he was perhaps less metaphysical in his later than earlier life. I have heard it said that, though greatly admiring him, the good people of Kent, his first charge, did not think him so great a preacher as many a more rhetorical pulpit orator; at least did not fully know what he was until he was called to be Dr. Lyman Beecher's successor; then they woke to the fact that the trouble had been with their capabilities of recognition, and ever after took great pride in him.

Certainly, when president of Union, he was one of the most easily understood of preachers. My people there invariably enjoyed him, and he was very kind in coming to the help of the pastors there. Especially delightful was he in his short addresses at our union prayer-meetings, and in those discourses where, without manuscript, he just talked out of his mighty brain and warm heart. His prayers were short, direct, simple, earnest. No instructing the Almighty in the history of creation or the metaphysics of philosophy.

This rare simplicity marked his intercourse with men. He had a certain little Scotch brusqueness, just enough to be delightful. I have often had occasion to remark a peculiar difference between him and his life-long friend, Tayler Lewis. Equal, perhaps, as scholars and thinkers, though in somewhat varying lines, there was this difference. Tayler Lewis was always the scholar, profound, vigorous, alert, on the *qui vive* for something to start him, and learning, argument and rich diction would pour forth in a vehement torrent. He was *en rapport* with every great theme, and especially with the current issues of the day. And it was wonderful how he would make classic history and philosophy bear upon modern questions and conflicts, as was illustrated in the lessons he drew for our great national cause in the rebellion from the misadventures of the Grecian republics. You never could meet him when he was not the scholar. With Dr. Hickok it was otherwise. He would enjoy a frequent quiet chat, when anecdote, humor, friendly questionings and friendly counsellings would abound, and you forgot the scholar in the man. I remember an instance at an Amherst Commencement. I was his guest and with him and dear Mrs. Hickok went to a large social gathering. E. P. Whipple had that day delivered the address before the societies, and in the parlor Dr. Hickok was introduced to him and they had an animated conversation.

By and by, when I was introduced to Mr. Whipple, he inquired of me how his friend, Dr. Lewis was, whom he much admired. I told him of his work on Lange, his health, etc. Then he asked "And how is President Hickok?" "He is very well," I observed, and scarcely repressing a smile. "I noticed you were just conversing with him!" "What," said he, "did I miss his name? Was that laughing old gentleman the great metaphysician?" It was too good a thing not to tell when we reached home. He took it pleasantly, and then probably forgot it, for he had not one iota of egotism about him. He was recognized by all as one of the most simple-minded and guileless of men, a great nature under the sway of human kindness and God's peace; a plain man whom plain men liked, and yet in some important respects probably the strongest and most original of our American philosophical and ethical writers.

It used to be said humorously years ago that his greatest work was understood by only two men, himself and Tayler Lewis, and that the latter got the dyspepsia from studying it. The latter had much to do in popularizing his theories by a series of very notable review articles.

Probably his friend and nephew (of Mrs. Hickok), President Seelye, has had most to do in giving circulation to his philosophy. It was in order to be with "his beloved Julius" that, after resigning the Union presidency, he removed to Amherst.

Here, residing side by side with one who appreciated and loved him, as few sons love and appreciate a father, he with his devoted wife have spent some twenty years; as beautiful and sweet a home as any might envy. Here, with the weight of seventy to ninety years upon him, he has worked out new formulæ in his philosophy and made new applications of it to morals and religion. The last time I saw him was last summer, at the Amherst Commencement, while a guest at their home. It was a delightful scene, unique and holy, the aged lovers sitting by the hour enjoying talk of friends here and friends beyond, and of the Savior over all, calmly, contentedly, waiting for the first of them to be called higher, with the assurance that the other should follow soon. There the *otium cum dignitati* of the philosopher to be exchanged for the immortal visions of God, and the unending discoveries of His wisdom and grace.

SAUGERTIES, May 19, 1888.

DR. FREDERICK HYDE.

By DAVID EUGENE SMITH, Ph. D.

It is very appropriate that this body of educators pay tribute to the memory of Dr. Frederick Hyde. His long life was devoted to education in the broadest sense of the term, and he was known to many of you, both officially and as a citizen.

Dr. Hyde was born in 1809, and died on the fifteenth of last October. He early began the practice of medicine at Cortland, and there continued as the leading physician for half a century. As a citizen he was a conservative but staunch supporter of every movement that appealed to his judgment as beneficial to humanity. As a Christian he was sincere, and for many years held responsible office in the church of which he was a member. As a man he was firm in his convictions; and I believe that it was never said of him that he knew that he was wronging any man. The poorest citizen could command his services with the same freedom as the rich, and largely for this reason his great talents brought him little wealth.

These remarks, containing only commendation, suggest to our minds the familiar passage of the class-room, *de mortuis nil nisi bonum*. But there are those rare good men whose lives, as we review them, have rugged points, and stern adherence to duty, but of whom we can sincerely say *nil nisi bonum*.

But to you I would speak of him only as an educator. Any physician present is aware that forty years ago the preparation required or even accessible for the degree of Doctor of Medicine in our State was very limited. Dr. Hyde had found this in his own case, but had continued his researches until he came to be looked upon as the best read young physician in Central New York. Having thus prepared himself for the work, he established a private medical school in Cortland, giving especial attention to anatomy and surgery. I have been told by physicians of eminence that at that time the best instruction in those branches in the State was given there. Certain it is that his school attained no little celebrity.

Thirty-five years ago he received the appointment of professor of obstetrics and medical jurisprudence in the Geneva Medical College, but the next year he was transferred to the more congenial department of surgery, which chair he held until the college was removed to Syracuse. This removal took place in the year 1872, on the establishment of Syracuse University, and was largely owing to Dr. Hyde's efforts. Indeed, so active was he in the matter, and so well fitted for the place, that he was raised to the position of dean of the College,

which office he held until his death. The stand taken by the Syracuse University College of Medicine has been unique, and entirely typical of its official head. It was Dr. Hyde's policy to make the course one of three years of hard work, and to offer no inducement to students except a diploma representing as good and as thorough instruction as the country afforded. As a result the number of students was always limited to those who were anxious to work, and the degree conferred by the college has always and everywhere been respected by the profession.

In matters of general education he was equally energetic. For eighteen years he was president of the board of trustees of the Cortland Academy, and for eleven years of the normal school. He never looked on these positions as merely honorary, but was actively connected with the schools and was a valued friend and adviser of all of us, both pupils and teachers. His interest in the Cortland Normal School became at one time unusually well-known throughout the State, and was typical of the man.

There were still other departments of education into which he entered as a leader. He was one of the founders of various medical associations, County, Central New York, New York, and American. In all these, as well as in the International Association, he held responsible offices and to them he contributed, from time to time, the results of his researches. For a number of years he was a trustee of the State Idiot Asylum at Syracuse, and was a frequent visitor at that institution, thus extending his zeal in education to the amelioration of that unfortunate class. In many other good works he was interested, the details of which some of you know, but which it is unnecessary to relate on this occasion.

And because of his ability, and his diligent application, and his Christian charity, when his pastor said of him, "Having served his generation well, he fell asleep," every one of the vast assemblage of mourners, the rich and the poor, the learned and the less fortunate, felt that the words were written for this man.

CORTLAND NORMAL SCHOOL, *July*, 1888.

ETHAN PENDLETON LARKIN, PH. D.

The subject of this sketch was born in Westerly, R. I., September 20, 1829.

In speaking of the make-up of Professor Larkin, there are some things upon which we will all agree. He was a positive man. His manner, his enunciation, his tone, his language—all indicated this quality. He was aggressive. No one could see his gait on the street

without thinking of him as a man who was bearing down on something—as a steam engine bears down on one who is in its track, a man who had an errand and an object in view. Mentally and physically he was always on the alert, always active. Strength and ability of body and mind he possessed in a wonderful degree. His family was noted for its physical strength. Everything with force weaker than his bent or broke before his force. He was an original thinker and a good teacher; that is, he was a man who put his thoughts in well adapted language. He could present his views in unusual clearness, and defend his side of a question with unusual force and skill. Force, enthusiasm, originality—these were his qualities. From his boyhood he was called a good scholar; he *loved* knowledge. His experience and observation gained in travel turned his mind very largely to scientific knowledge, for which he showed an early bent; even while in Shiloh, his favorite work was experimenting before his scholars and before the people of the community, and illustrating scientific truths and facts. But he was not a one-sided man in his knowledge. He was well informed on many points, and was especially fond of art and music. In short, his was a striking personality and individuality.

His age was fifty-eight years, eleven months and three days. He died August 23, 1887.

He had just reached the maturity of a vigorous manhood, when life seemed of most value, both to himself and to the world of work, in which he was a busy and potent factor. The larger portion of his working life has been devoted to teaching, for which he possessed many aptitudes, and for which he made thorough preparation.

He began his studies of the higher grade in the academy at Westerly, under Solomon Carpenter, and continued and perfected them at Alfred Academy, Oberlin College, Yale College, Union Theological Seminary, and one of the New York medical colleges. He was a most thorough student, in whatever direction he studied, and few men acquire a more many-sided knowledge than Professor Larkin, and very few have better aptness in explaining and impressing upon others what they know themselves.

His work as teacher was begun at Shiloh, N. J., where he originated the Shiloh Academy, and through its influence, did very much for higher education in all that section of country. From Shiloh he went to Alfred, where he had charge of the Latin classes for a number of years, after which he went to Milwaukee, Wis., as principal of the high school of that city. During a break in his professional studies, he engaged in business in connection with the introduction of kerosene oil into South America. While engaged in this venture, he was called

to the chair of Natural History in Alfred University, and in the fall of 1885 he commenced work in that department, with an earnestness and maturity of scholarship which at once put it into standing among the other departments of the University.

As a teacher, he was prompt, accurate and thoroughly possessed of his subject. He was as appreciative of attention and assiduity in his students as he was intolerant of laggardness and inattention. As a scholar, he was as versatile as he was critical, as studious as he was comprehensive. His somewhat remarkably accurate and retentive memory enabled him to have ever ready for use what he had gathered from the broad and varied fields of investigation. He possessed himself so thoroughly and largely of the objects of research and the principles of science, that he had a right to be confident and positive in his assertion of them. While he was determined, he was not dogmatic; while he was positive, he was not pertinacious; while he was earnest, he was not egotistic. He had earned a recognition by men of science and letters. The last week of his life was spent in hard work as a member of a scientific association holding session in New York city.

PROFESSOR GEORGE W. HUNTSMAN.

By Dr. ADOLPH WERNER, College of City of New York.

During the vacation Professor George W. Huntsman passed away. He was not known to the students now in college; a few, probably very few, will remember reading the name in the last triennial register. But to thousands of former students the announcement of his death will have recalled their old teacher and their youth. Professor Huntsman was born in Bucks county, Pennsylvania, in September, 1809. He lost his parents early and lived with his grandparents until he became old enough to choose his calling in life. It has been handed down that he was thoughtful in his boyhood, modest withal, and not without shrewdness. Children's speeches are ordinarily not so wonderful as the family think—they are not unique; yet one utterance has been remembered of this childhood which is, at least, characteristic. It had been remarked that the boy listened attentively to what was said in religious meetings, and some one said, in his presence, that he listened as if he understood. He said: "Perhaps I do." Through life he listened attentively to what was said; frequently he was silent, but perhaps he understood always. He was thoughtful, modest, and not without shrewdness. At school he formed a friendship with a lad who, like himself, conceived the wish for a larger education. They studied together, went to an academy in the neighborhood of Burlington, New Jersey, and there prepared for college. His friend went.

He remained in the institution as a teacher; some years later became an instructor in the Rev. Mr. Aaron's school in Burlington, and, subsequently, in St. Thomas Hall, Dr. Hawks' well-known establishment at Flushing. After the discontinuance of this school, Mr. and Mrs. Huntsman—they had been married in 1838—conducted a private school in Flushing. In the fall of 1849 he was appointed tutor in the Free Academy of the City of New York. He brought with him the reputation of excellence in mathematics and natural philosophy, on which latter science he had lectured acceptably at Burlington.

For some years Mr. Huntsman taught classes in mathematics and also in *belles lettres*. But when the growth of the free academy made it necessary for President Webster, who held the chair of philosophy, to have assistance, Mr. Huntsman was selected. He was made assistant professor in 1855 and adjunct professor in 1857. He developed as great taste and aptitude in philosophy, and was as earnest a student and as accomplished a scholar as in the favorite studies of his early manhood.

The lectures on political economy, which during his adjunct-professorship he delivered to the sophomore class, were admired at the time and are remembered favorably to this day by those who heard them. Upon the resignation of Dr. Webster, in 1869, Professor Huntsman became the professor of philosophy.

He continued until 1879, when, after a service of thirty years, and having reached the age of threescore and ten, he retired to pass the evening of his life in the peace of his country home. The illness which preceded his death was brief.

The mortal was buried in Flushing cemetery to mingle with the earth—the good that he did lives after him. One thing more. He sacrificed his dearest to the country. The only son that grew beyond childhood, a young man who had inherited the father's robust strength and health, volunteered in the first year of the war, and was brought home dead after the second Bull Run. Professor Huntsman's name will not be borne by descendants. It will be remembered by his pupils and by the college.

PROFESSOR WALTER R. BROOKS, D. D.

By Professor N. L. ANDREWS, Madison University.

In the death of Dr. W. R. Brooks, professor of natural history in Madison University, that institution has sustained no common loss. He was born in Nelson Flats, Madison county, August 3, 1821, and died at Hamilton, February 21, 1888. He was a member of the class of 1843 in Madison University, but a trouble with his eyes compelled him

to abandon his college course before graduation. In 1842, before he was twenty-one, he was ordained to the Christian ministry, and from the very outset attracted marked attention as a preacher of rare gifts. After pastorates at Ashville, Medina, and Perry, in this State, he was called to Madison, Wisconsin, but was soon recalled to New York, to assume the charge of the Baptist church in Hamilton, which, as the leading church of a college town, afforded fine scope for the use of his best powers. He began this pastorate January 1, 1859, and held it nearly fourteen years. In 1863, Madison University conferred upon him the degree of Doctor of Divinity, and in 1864 made him a trustee of the university. In 1874, he was appointed lecturer in natural history, and held this chair until his decease.

While his life in Hamilton was divided about equally between his pastorate, and his professorship, it would be difficult to decide which period was most valuable to the university. His discourses were so stimulating and instructive, as to be a wonderful educative force to the students. The best graduates of the university during the time of his pastorate are fond of acknowledging their great obligation to Dr. Brooks. He did much to form the minds of many of the ablest alumni. He had read widely in literature, and his sermons had high literary merit. They were rich in the philosophy of religion and of life, and this was no less informing to the intellect for being imbued with most profound sentiment. He had rare spiritual insight. He was strong in his intuitions, not so much a reasoner as a seer. Studies in natural history had been his favorite pursuit for years, and his knowledge of the natural world afforded him most apt and beautiful illustrations of moral and religious truth. Thoughtful hearers gained a new conception of God's relation to nature, a view at once thoroughly philosophical and profoundly religious.

His qualifications for the chair of natural history were many, and his success was conspicuous. He was a keen observer, and enthusiastically devoted to his chosen line of study, spending no little time and money in the making of original researches. It was impossible for him to hold himself in a merely professional relation to his classes. He drew them to himself with a personal bond, and uniformly inspired them with interest in the subject taught. Additional breadth was given to his instruction by meetings at his house for essays and discussions, and by expeditions for field work. The eager anticipations with which students looked forward to the studies of his department were more than fulfilled. His classes will long remember those inspiring talks on the weightiest themes, which grew out of his scientific studies, and which communicated to them his own assurance

that there is no conflict between science and religion. He cordially welcomed all established truths, and was hospitable to every scientific hypothesis. Anchored as he was by religious faith and experience to the great verities of the universe, he did not fear free inquiry.

In his personal characteristics he had a rare combination of gifts. Not only had he powers of scientific observation, but also no little genius for philosophical speculation. Originality, wit, and a keen literary sense gave charms both to his writing and to his conversation. Though conscious of his powers, and not unresponsive to appreciation, he was sincerely modest and unpretentious. In manners and in thought he disliked all unreality and shams. His friendships were peculiarly strong, his sympathies ready and generous, his benefactions many and unostentatious. His character as a man, and his services as an instructor, will long be a precious legacy to the alumni of Madison University and to his colleagues in the faculty.

JOHN PURDUE GRAY, M. D., LL. D.

By Professor WILLIS G. TUCKER, M. D., Albany Medical College.

John Purdue Gray was born, of American parents, in Half Moon, Centre county, Pennsylvania, August 6, 1825, and received his early education at the common school in his native place and at the Bellefonte Academy. From the academy he went to Dickinson College, from which institution he received the degree of A. M. in 1846, and to the University of Pennsylvania, from which he was graduated in medicine in 1848, Professor Rochester, of Buffalo, being a member of the same class. Immediately after graduation he entered the Blockley Hospital, in Philadelphia, as resident physician under Dr. Benedict, the chief of staff, and in 1851 was appointed third assistant physician in the New York State Lunatic Asylum at Utica, where Dr. Benedict had become superintendent upon the death of Amariah Brigham, in 1849. His subsequent advancement was most rapid. In 1852, he was made second assistant, and in 1853, upon Dr. Benedict's resignation on account of ill-health, first assistant and acting superintendent of the asylum, when but twenty-eight years of age, and the same year he was appointed medical superintendent of the Michigan State Lunatic Asylum and prepared the plans for the new buildings at Kalamazoo. The managers at Utica, however, conscious of his ability and efficiency, prevailed upon him to return, and in 1854 he resigned his position in Michigan and entered upon his notable career as medical superintendent of the State Lunatic Asylum at Utica, at the same time succeeding Dr. T. Romeyn Beck as editor of the *American Journal of Insanity*, of which he had been the assistant

editor in 1852. This journal had been established in 1844 by Dr. Amariah Brigham, the first superintendent of the Utica asylum, and was the first and, for many years, the only journal of its kind in the world.

Within the limits of a brief memoir it will be impossible to do more than briefly state some of the most important events in Dr. Gray's life, and name some of the positions of honor and influence which he held. For many years he was professor of psychological medicine and medical jurisprudence in the Bellevue Hospital Medical College in New York, and from 1876 was professor of psychological medicine in the Albany Medical College. He served as president of the Medical Society of the State of New York in 1868; of the psychological section of the International Medical Congress, which met at Philadelphia in 1876; of the Association of Medical Superintendents of American Institutions for the Insane, and of the New York State Medical Association in 1885. He was an honorary member of the Societa Freni-atica Italiana, Société Medico-Psychologique of Paris, British Medico-Psychological Association, and of the American Archæological Society. By appointment of the Governor he acted as commissioner for establishing the Willard Asylum and the State asylum at Buffalo. Hamilton College conferred upon him the degree of LL. D. in 1874, and he was the recipient of many other honors.

As an expert in criminal and civil cases involving questions as to sanity, his services were in constant demand, and on several occasions were of great value to the State. From President Lincoln he received frequent commissions to examine criminals alleged to be insane, and after Lincoln's assassination he was called upon to examine Payne, one of Booth's fellow-conspirators. In the case of Guiteau, the murderer of President Garfield, Dr. Gray directed the policy of the government in the prosecution, and suggested the course of the examination. In the Vanderbilt and Fillmore will cases and the murder trials of Bigot, Buckhout, Walworth and Dillon his testimony had great weight and attracted much attention.

Dr. Gray delivered frequent addresses and read many papers before scientific societies, and was a contributor to many journals besides his own. Among the more important of his papers are the following: "Insanity and its Relations to Medicine;" "General Paresis or Incomplete Progressive Paralysis;" "Insanity, its Dependence upon Physical Diseases;" "Thoughts on the Causation of Insanity;" "Pathology of Insanity;" "Lesions found in the Brain in Insanity;" "Mental Hygiene;" "Reparation of Brain-tissue after Injury," and "*Hyoscymia in Insanity*." A writer of great originality of view, and a master

of the art of concise expression the influence of his writings was widely felt. In matters relating to the administration of public charities, and particularly asylum management, lunacy legislation and kindred topics he was an acknowledged authority, and among American alienists he was a recognized leader. Possessed of strong convictions and a decided will he did more than any other man on this side of the Atlantic to improve the condition of the insane, and to extend the means of treatment in insanity, which he regarded as a physical disease. The medical care of patients became with him, therefore, a matter of the highest importance. He believed that an asylum should be a hospital in which the inmates should be nursed and treated as sick people. He never adopted but always combated the views of the English asylum superintendents concerning the use of mechanical restraints, and his views were generally adopted in this country, and prevented the employment in American asylums of the more severe methods made use of abroad. One of the first improvements which he introduced at Utica was the removal of the violent and destructive class from the confinement in which they had been kept to the light and cheerful surroundings of the wards, while many were relieved from restraint, and given an opportunity to exercise in the open air, and even brought to the common table under proper restrictions. He was the first to introduce steam-heating and artificial methods of ventilation by steam-driven fans into American asylums, and to him belongs the credit of inaugurating in this country the microscopic study of the brain, early begun and systematically pursued in the Utica asylum, which under him became a veritable school of instruction, and furnished a larger number of men thoroughly educated for service in this field than any other in the United States. He visited Europe in 1879 and inspected many of the public hospitals and asylums for the insane, in which he found that many of the improvements introduced by him had been adopted, and he returned with the conviction that American superintendents had little to learn from their European brethren. As might naturally be expected, a man so pronounced in his views and fearless in the expression of them made some enemies, and Dr. Gray was often bitterly attacked by those who differed from him in opinion or sought to displace him from the position which he so long and so ably filled, but he defended himself in every instance with the energy and boldness which characterized all his acts and with the success which never deserted him.

Personally, Dr. Gray was a man of elegant address and dignified appearance, whose manner inspired confidence and commanded respect. He was a man of even temper and courteous demeanor,

whose many endearing qualities secured the respect of his friends and the love and admiration of his intimate associates. He was domestic in his tastes, a kind father and a loving husband, his home-life being singularly happy. He married, September 6, 1854, Miss Mary B. Wetmore, a daughter of the late Edmund A. Wetmore, of Utica, who survives him with three children, Dr. John P. Gray, Jr., William and Miss Cornelia Gray. Three other children died in infancy. Upon religious subjects Dr. Gray held clear and decided views, and for many years he was a consistent member of the Reformed church.

Dr. Gray's end was hastened, and his health, comfort and usefulness during the last four years of his life impaired, by the murderous attack made upon him in 1882 by Henry Remshaw, afterwards adjudged insane and confined in the Asylum for Insane Criminals at Auburn. Dr. Gray was sitting in his private office on the evening of March fifteen, when Remshaw, in an insane frenzy, shot him in the face. His escape from instant death was remarkable, and although he so far recovered that the wound left little outward mark to indicate its severity, the injury seriously affected his nasal breathing, left an almost constant neuralgia, and inflicted upon his nervous system a shock which he never outlived. He resisted with fortitude the inroads which disease was gradually making upon his system, but his strength was seriously impaired, and the burdens of his position exhausted him as never before. His friends became alarmed at his condition, and a leave of absence being given him, he spent the winter of 1885-86 at Thomasville, Georgia, and seemed for a time to be benefited by the change; but the gain was only temporary, and the succeeding summer he went with his youngest son, and daughter, and some intimate friends to Europe, and spent some time at Carlsbad, but on his return the attempt to again take up his work proved too much for his strength, and he rapidly failed. He died at Utica, of Bright's disease, November 29, 1886, in the sixty-second year of his age, the end being hastened by a severe cold contracted while on a journey to Baltimore, which resulted in bronchitis. The funeral services took place December second, and were attended by delegates from numerous societies and representatives of all the professions. Dr. Gray leaves behind him the memory of a useful life devoted to the promotion and diffusion of knowledge and to philanthropic works—a life not of the longest, measured by years, but, gauged by the good accomplished, far exceeding in duration that of the majority of men. His name and good deeds will be remembered so long as ability and genius shall be esteemed and integrity and philanthropy revered among men.

PRINCIPAL A. C. WINTERS.

By Miss EMILY WINTERS.

Who does not hesitate to describe the life of another soul, when he is conscious that he is unable to give a true history of his own? The relation of the external events of a man's human existence forms but a small part of his history. While I hesitate, however, I am glad to pay such tribute as I may to the memory of one to whom more than to any one else I owe the blessed influences which have shaped my life for good.

Professor A. C. Winters was born in Barrington, Yates county, N. Y., September 20, 1835, and was therefore not quite fifty-two years old when he died. He was the third in a family of seven children. His father, Daniel Winters, had come into the town when it was yet a wilderness, had cleared a spot for a home in the midst of the forest, and with his own hands built the log-house to which he brought his young wife. Here his children were all born, and here they soon added their little strength to that of their parents, in their efforts to conquer the earth and possess their inheritance. Here were formed habits of industry, of perseverance, of strictest honesty and uprightness. The father, himself a teacher in the district schools of the town, encouraged his children in their love of books and study. At that time the educational advantages to be enjoyed in the rural districts were very meager. There was three months school in the winter, and again three in the summer. As soon as the boys were able to be of use in the work of the farm, they were kept at home during the summer term, and had only three months schooling during the entire year. The teachers themselves were generally young men and women who had been educated in the district schools of the county. Though their knowledge may have been small, their efficiency was greatly increased by an earnest purpose. Generally, very thorough work was done in these log school-houses, and more than one aspiring youth who had received most of his training there, found himself able to pass the college entrance examination creditably.

In district No. 11, in the town of Barrington, Professor Winters received all the education he possessed when he began to teach. Great were the contests in arithmetic and spelling, and into these he entered most heartily, soon placing himself first among the scholars of the town. So eager were the children of this family to go to school that when work on the farm or in the household pressed, they willingly rose long before day to do their share of the work that they might not lose a half-day at school. Much has been gained by the

system of grading our schools, and yet something of the inspiration, of the enthusiasm, of the eager industry of those earlier days of our public schools has disappeared.

At eighteen years of age Professor Winters began to teach, as his brother and father had done before him, in the district schools. The same qualities which marked him, as a teacher through life, showed themselves in his first work. He was enthusiastic, thorough, faithful, patient, yet ever exacting from the pupil the very best of which he was capable; impatient of any excuse for work poorly done. His pupils believed in him, were inspired by him and unconsciously and inevitably learned from him far more valuable lessons than he taught them from any text-book. After two years study in Starkey Seminary, at Eddytown, N. Y., he entered the freshman class of Genesee College, at Lima, N. Y. With characteristic enthusiasm he inspired a number of friends to go with him, who but for his generous and unselfish interest would never have thought a college course a possibility. He at once took a good position among the students of the college, both as a student and as a man. After two years study here he entered the junior class of Rochester University, where he was graduated in 1865.

Soon after graduation he married Miss Hettie Payne, at that time preceptress of Starkey Seminary, and began teaching with her in the public schools of Nashville, Tenn. In a few years he returned to New York and became a teacher in Cook Academy, Havana, N. Y., and soon after took the principalship. To this institution he gave the best of his life. Dr. Anderson, of Rochester University, says, and his own life but proves the truth of his words: "No institution of learning can be worth much till some good man has put his life into it." The best memorial of Professor Winters will ever be found in the lives of the students whose characters were formed by his life and teaching during these years spent in Cook Academy. When he took charge of the academy its rank among the academies of the State preparing students who were able to pass examinations prescribed by the Regents of the State of New York was No. 50. During the four years he was principal it rose to No. 23. Rochester University, Madison, Syracuse, Vassar, Smith, Wellesley, Elmira, each gave Cook Academy the right to enter its students in their classes on the principal's certificate. Each year \$8,000 of the debt were paid. Several valedictorians at Vassar were prepared for college at Cook Academy during this time.

But his health, never vigorous, began to fail, and he found rest and recreation in Europe. After two years of study and travel, he returned to America and took charge of a seminary in Doylestown,

Pa., where he began to repeat the same experience as at Cook Academy. The institution was not paying expenses. He soon began to pay up its debts. The number of students was nearly doubled. But again, both for himself and his wife, he was obliged to seek health in a more favorable climate. He went to Florida, and spent some time in business pursuits. But he was restless under it. The spirit drove him to his chosen work. He became president of Griffin Female College, and again poured out his life without stint for the school to which he ministered. In the one year he wrought in Griffin he made himself a power of untold worth in the community. His pastor said of him: "I have never found among any people such a willing and capable helper as I have found in Prof. Winters."

In early life he became a member of the Baptist church, and remained a most faithful and devoted worker in that church till he died.

But the forces of his life were spent. In vain he struggled to resist disease till he might finish the work of the year. A few days before the time appointed for commencement day he dismissed his classes and laid him down to die. July 3, 1887, he entered peacefully and hopefully into rest.

"Lay him low, in the clover or the snow,
As man may, he fought his fight,
Proved his truth by his endeavor,
Lay him low, lay him low."

CHARLES LINDEN.

By Principal HENRY P. EMERSON.

The death of Professor Charles Linden, for seventeen years at the head of the department of natural history in the Buffalo High School, is an event which calls for more than a passing notice, for there is much in his life and character to excite interest and furnish instruction.

Mr. Linden's occupation as class-room instructor in a secondary school was one which many follow as a stepping-stone to more ambitious things, but instances are few in which it is chosen as a life-work, and fewer still in which it is continuously pursued for seventeen years in the same school. Such positions do not permanently attract a large number for they promise neither large pecuniary reward nor wide renown. He was simply a teacher of the natural sciences, well satisfied to do the work belonging to his position, and any thought of changing his work seems never to have occurred to him. It was a quiet and obscure life he led, and his worth was in the nature of things best known to his pupils and the small number of those

interested in similar pursuits. Such a life he chose and he faithfully followed it to the end. We are but truthfully describing Mr. Linden's character when we say that in him the love of learning was so much stronger than ambition or the desire for wealth that he chose this rather than any other pursuit. Perhaps it would be more accurate to say that he never consciously chose it but that it came to him because it was in harmony with his general aptitudes.

Mr. Linden's preparation was not gained along the usual and beaten track of school and college study. His early life was varied with interesting incidents; indeed was one to which we might apply the term romantic. He was a self-made man and a large part of his information was learned directly from the book of nature. He was born in Breslau, Germany, about fifty-seven years ago. He was not disposed to talk freely of his boyhood, and very little was known of his early education except that he received the usual instruction given to boys and was further educated at the gymnasium in Breslau. At the age of twenty he went to sea as a sailor, doing so it is said to escape service in the army. We next find him in London studying English, and afterwards a seaman on the American lakes. His seafaring life on the lakes brought him occasionally to Buffalo, where he made a few acquaintances and fast friends. Among those who recognized Mr. Linden's tastes and capacities for scientific work was Ottamar Reinecke, the well-known editor and scientist of Buffalo, through whose influence he was brought to the notice of the late Judge Clinton, then president of the Buffalo Society of Natural Sciences. Mr. Linden had learned the art of taxidermy, and his skill in mounting birds proved very serviceable to the society, and he was soon appointed curator of the society's collections.

Both before and after Mr. Linden's employment as teacher in the high school he engaged in scientific explorations which proved no less valuable to the school than to the scientific society under whose auspices he traveled. As soon as he had finished up his school work at the beginning of a summer vacation he was off for fresh fields and pastures new. At one time or another he traveled in North Carolina, Florida, Hayti, Brazil, Labrador and Europe, bringing back valuable collections, some of which are now in Harvard University. He was intimate with the elder Agassiz and at one time accompanied him on a journey to South America. His knowledge of the out-door world, his explorations in many countries and on many seas, suggested him as a person peculiarly fitted to teach physical geography, and this was his first work in the high school. His success soon brought him a more extended range of duties as a teacher. Geology, physiology

and botany were successively placed under his charge. He organized the Naturalists' Field Club, a society of enthusiastic young naturalists, which he made, and which is likely to continue, a useful auxiliary in original scientific research in the city and particularly in the high school. He was an easy and interesting writer, and sent home in the form of occasional letters to the newspapers of Buffalo the results of his observations in foreign climes, and he was at times a regular contributor to such papers as the *Angler*, and *Turf, Field and Farm*.

On the 3d of July, 1887, Mr. Linden left Buffalo to spend a few weeks with rod and gun in the vicinity of Carleton, on the Bay of Chaleur, in Canada. He had been there but a short time when he began to act strangely, to find fault with his accommodations, and finally to become violent. His Buffalo friends were apprised of his condition by telegraph, and a young physician, a former pupil, was sent to bring him home. He was pronounced insane and taken to the Buffalo Insane Asylum, from which he never came forth. His case was hopeless from the first, and as one who had worked with him for thirteen years heard his incoherent words, "like sweet bells jangled out of tune and harsh," his sad condition recalled the exclamation in Hamlet, "Oh, what a noble mind is here o'erthrown." His mental condition was so deplorable and his case so hopeless that it was at once a sorrow and a relief to learn, on February 3, 1888, that death had ended his troubles.

As a teacher Mr. Linden was remarkable for patient industry, for original methods of presenting truth, for his familiar and Socratic intercourse with his pupils, and for unswerving loyalty to the school he served. There was a freshness in his instruction as of nature herself. He was a Thoreau in his love of the fields. Frequently he went outside of the matter given by ordinary writers and gave the pupils the valuable information he had gathered in his travels. His enthusiasm, pure, unselfish and devoted to the improvement of mankind, exerted a salutary and quickening influence on his pupils.

Another characteristic was his simplicity and modesty. Placing a high value upon results, he cared little for methods and ceremony. Regarding knowledge and truth as everything, he sought for them and made them known without bringing himself forward. He had literally no thought of self-advancement. He liked plainness and frankness; was genuine and transparent, incapable of insincerity or indirection.

Mr. Linden was no slave to conventionality, possibly he cared too little for appearances. To some he seemed peculiar, but his peculiarities were doubtless exaggerated in the mouths and minds of those

who did not understand him. At least they were not affectations, but like himself perfectly spontaneous and sincere. He was an "interesting" man. As Emerson said of Margaret Fuller, everything about him was interesting. What casual observers called eccentricities, those who knew him better considered marks of a strong individuality. He was a character, in the special meaning of that word—"one of those pieces of nature's workmanship which are malleable by no external influence of culture, society or circumstances." Such men always speak from within and echo no man's opinions. When such a man is a teacher he will be interesting and will strongly impress himself on his classes, whatever deficiencies he may have, and this Mr. Linden did.

His nature was contemplative and philosophic. He was a constant reader, an original thinker upon the historical, scientific and social problems that attract thoughtful men. I was more than once surprised to find how familiar he was with some particular epoch of history. His comments and criticisms on men and events were interesting and generally just. No man or woman without somewhat similar tastes could know him. He was not to be lightly gauged by outward manner or appearance. Those who did know him, as they now look back, treasure the recollection of his looks, his figure, his voice, his abstracted air as he walked the streets, his hearty laugh at some pupil's mistake in the class-room, his beaming face as he displayed some specimen, under the microscope, to his class assembled around him.

Mr. Linden was never married, and it is not known that he had a relative in this country. All his time and thoughts were given to his favorite pursuits. His character was well epitomized in a few words spoken by the Rev. Herbert G. Lord at his funeral. While other people were striving for money and to make a show in the world, this man had plodded along through life in an unobtrusive way, content to learn, to know and to teach.

EDWARD DANFORTH.

By Hon. ELLIOT DANFORTH.

Edward Danforth was a native of Hillsborough county, New Hampshire, and a lineal descendant of the Danforth family which settled in Boston in 1634, and was prominently identified with the early colonial government of Massachusetts. His father was the Rev. Francis Danforth, a New England clergyman of considerable note. His early education was obtained at home. He began the study of Latin when nine years of age, and had completed

the preparatory course for college at the age of fifteen. His professional work began in Erie county, in this State, when but sixteen years of age, by teaching district school in winter while pursuing his college course. He was afterward principal of union and academic schools at Clarence, Batavia and Clarkson.

He also served as school commissioner in Erie county, and as instructor of teachers' institutes. His success in these places brought invitations to more responsible positions. He went to Grand Rapids, Michigan, and in five years built up a system of schools which were reported in the *State Gazetteer* as the model schools of the State, and attracted much attention for the improved methods of instruction developed. He was called to Troy, in this State as the first superintendent of public schools in that city, and after a service there of six years was appointed Deputy State Superintendent of Public Instruction, remaining with Hon. A. B. Weaver through the two terms of his administration. He then became the first superintendent of the schools of the city of Elmira. In all these positions he won the highest testimonials of success. His merits were frequently recognized by honorary memberships in literary and scientific organizations. He received from Dartmouth College the degree of Master of Arts, in recognition of "scholarship and professional service," and afterward the same degree from Hamilton College. His constant advancement in educational work, and growing interest in it, diverted him from his original purpose of practicing law. His executive ability in the management of business and financial interests was no less marked than his tact and skill as a supervisory officer and teacher.

He was the twenty-seventh president of the New York State Teachers' Association. His membership with that body commenced with the meeting at Troy in 1856, and with the exception of the meeting at Rochester in 1862 he had attended every meeting of the association. He was one of its officers for eighteen years, and contributed from time to time papers and addresses, and always took an active interest in all matters tending to promote its character and usefulness.

Mr. Danforth was a man of the noblest qualities and most sterling character. His intellect was keen and well disciplined. His tastes were refined, his reading broad, and covering a wide range, and hence it was that few men of his time were better informed than he in all that makes up the realm of literature.

His interest in education and in the kindred work in which he was engaged, as one of the foremost men in the State Sunday School Association was very great. At no time was he happier than when he could meet hundreds of teachers in an institute and give them the

benefits of his learning and his experience, unless it was when he could look in the faces of an assemblage of Sunday school children and interest them in the great truths and inspired teachings of the Good Book. His influence was always on the right side. In every department of his life's activities he illustrated the influences of the Christian faith. He was genial, warm-hearted and companionable, and his friends were without number.

This useful life closed at Elmira, June 13, 1888. Mr. Danforth was buried at Clarence, Erie county.

JAMES JOHONNOT.

By Professor JOHN KENNEDY.

The death of Professor James Johonnot removes a man remarkable in many respects. He lived a militant life, battling for what he conceived to be progress, wherever the question of progress was raised. Nature seemed to have designed him for a radical, and from first to last, in season and out of season, he typified the character. Always on the front line, giving and receiving blows, he yet preserved an unsoured disposition, and a sweet and genial temper. His temper seemed proof against everything. One who has known him many years, who has been associated with him in intimate professional relations, who has seen him fighting like a Titan for what he believed to be right, who has seen him overwhelmed with business reverses, who has seen him racked with disease, who has seen him in the fire of almost every kind of trial, can not now remember ever to have seen him manifest the least evidence of spite or malice, can not now remember a moment when Johonnot was not ready for a joke. The man of whom this can be said must be truly a remarkable character. He seems able to eliminate the personal element on each side. He fought not for Johonnot, but for a cause; hence he was indifferent as to how Johonnot fared. He was always endeavoring to smite his enemy, hip and thigh; but that enemy was only what he conceived to be a false principle. His sword was never seeking a personal victim. He was by nature kind and genial; he preferred the weapons of pleasantry. Where they failed he never resorted to ill-natured sarcasm, but he could produce a Damascus blade and rage like the very spirit of destruction in the ranks of his adversaries. Yet after the fight was over no one could speak of his personal opponents with less acrimonious criticism, or with greater apparent desire to be just. He never grew away from children — to the last he was one among them; he gravitated to them, and they to him, and he was the merriest youngster of the lot. He had within him the elements of leadership and

capacity for organization, but he was utterly without guile; he was never identified with underhand schemes to advance himself or to pull another down. Thoroughly temperate and clean in his habits, and of exceptional physical beauty, he was a most wholesome man. Where his principles were involved he was as immovable as a mountain; no matter what the pressure, no matter what the personal loss that menaced him, he could decline on principle—he could be a martyr.

His intellect seemed quite in keeping with his moral character; he saw with remarkable clearness—he reasoned with great logical power. It is more than possible that he has made himself a name that will live in educational annals. He was a force deserving of recognition, and he voiced his cause. His writings make him an eminent authority on educational matters. In his later years he would occasionally say to his intimates that he had a message to leave before he took his departure. He died in the harness, working to the last moment, not only after the shadow of death was on him, but even after the icy chill of dissolution had taken possession of his extremities. He never yearned for reliefment—he had always preferred that death should find him at the post of active duty.

Allusion has been made to his physical beauty, but the reference was specially to his magnificent head. Unfortunately the tall, slender, frail, afflicted body below was but a feeble support for such a superstructure, was but a frail tenement for such an active soul as his. But the head! who has seen anything more majestic, more superb? How literally it seems to fill the measure of the poet's great conception.

“ See what a grace was seated on this brow!
Hyperion's curls, the front of Jove himself,
An eye like Mars to threaten and command,

* * * * *

A combination and a form indeed,
Where every god did seem to set his seal,
To give the world assurance of a man.”

Had his bodily development been in keeping with his superb head, with his royal intellect, and his character, Professor Johonnot would have made an approach to human perfection far beyond the lot of the average man.

It would take space to treat of his life-work. He lived in times of upheaval, and he was identified with every eruption. He lived early enough to find many evils to attack, he lived late enough to see many reforms accomplished. He fought for the emancipation of the slaves, drawing down upon himself obloquy, persecution, injury. He

has always contended for the elevation and enfranchisement of woman. He incurred no small odium in fighting for the abolition of the rate bills and the establishment of free schools. He has been a relentless foe of empirical teaching, and has been as untiring a champion of sound principles of education. He was closely identified with the creation and development of teachers' institutes and normal schools, and as an instructor in the former, he has become famous. It will be long before any consideration of the history of institutes will omit the name of *Johonnot*.

As a writer on education, his works take high rank. Only time can determine whether they will or will not take and keep a place in the front rank. He was a success; he died with an unsullied reputation, with no ill-gotten gains, with no suspicion of his integrity, with a character free from distortion and utterly unseared by the hot iron of trial, with no record of mean triumphs, yet with a character richly developed, mature enough to respond to the last utterance of humanity, yet youthful enough actually to enjoy the companionship and sports of children. To die with such a personality is success. But he died after attaining to great philosophical vision, after becoming to a great extent a seer and a prophet, as well as an apostle. He lived to see the triumph of many of his principles, to see what had been odious become popular and established. He was in the movements, he showed in their success he was part of that success; it was largely his. That he was without error, that he was infallible no one will claim, because he was a human being subject to human limitations. But that he had the light of truth on many lines, that he voiced and embodied on many lines the spirit of the age, that he never knowingly compromised with error, that he never truckled to the popular fallacies of the moment, that he bravely announced his convictions and accepted battle for them, that he made every foeman respect his steel, that he was an active, continuous force in the direction of progress, all must concede. New York can well afford to be proud of such a son. She can afford to drop the tear of sorrow on the grave that has closed over so much that was great and so little that was mean. Here was a man of heroic proportions. Give him a statue in the hall of educational heroes, and commend his name and fame to the admiration of posterity. *James Johonnot* was not the creature of a day; he was the man of an era. As a principle touches the infinite and the eternal, escaping the shackles of particular facts, so we trust that *Johonnot's* principles so clearly apprehended and so loyally served, have lifted him out of the narrow environment of his personal acquaintance and

his physical career, to give him the finger-touch of the before and after in the unbroken line of the earth's immortals. * * * "After life's fitful fever, he sleeps well." "Peace to his ashes."

One might dwell at length on many interesting traits of his mind and character. It seems proper to mention at least one that was eminently characteristic. It is not in average human nature to look with complacency upon a rising rival. If Johnnot ever felt a pang of jealousy over the success of younger men engaged in his line of activity, he never gave the slightest manifestation of that feeling. On the contrary the unfolding of a young man giving promise of rising to the occasion caused him to glow with delight. He never thought of how it affected him; he only thought of its effect on the cause. A young man was always safe with Johnnot; his possibilities would receive full recognition, while his crudities would be passed upon with the most generous silence, or call up only the most friendly suggestion.

FRANCIS P. LANTRY.

By Professor JOHN KENNEDY.

Professor Lantry brought to the work of institute instruction rich endowments, both natural and acquired. He was gifted by nature with scholarly tastes and aspirations, and with great capacity for learning. He stepped forth into the arena of action as a fine product of college training—a versatile, exact and strong man in all that pertained to the domain of intellect. His sensibilities were extremely acute, as might be predicted of his extreme nervous temperament. His absorption in music and all the branches of the fine arts, partook of the nature of passion. He was able, in consequence, to sound what is rare in our material age, the note of delicate culture. He had studied literature in its æsthetic aspects—the music of diction had taken possession of him—and his own utterances never lacked perfect rhythm and felicity. His ordinary discourse was faultless in form; his public addresses were music. A cultivated gentleman once told the writer that he had been staying in the institute all the week to hear that man, not particularly for what he said, but for the way he said it. "He is never out of tune." He possessed a fine physique, was scrupulously cleanly in his habits and neat in dress. But he never over-dressed; his infallible taste enabled him to appear just right. His courtesy was never failing: he was a polished gentleman. But that epithet alone does not quite characterize him; there was in his nature a vein of stateliness. While he was never open to the charge of affectation or haughtiness, while he was always thoroughly agreeable and attractive, yet there was ever manifest a

uggestion of the *grand air*. He never seemed conscious of it ; its seemed part of his identity. While he affected no airs, he yet exacted the respect to which he felt himself entitled. He was extremely sensitive as to his dignity, and much of his suffering in life came from shocks to this precious possession. His tastes were not only refined and delicate, they were even luxurious. He could have consumed the revenue of a prince without seeming to be a wasteful spendthrift. As a consequence he did consume more than his income would bear, and throughout life he suffered the torture of financial straits. He seemed that most unfortunate of characters, a duke without a dukedom. He was always so much out of harmony with his environment, always so much in need of widely different conditions, that his case was ever pitiful to those who understood him. So far as success consists in the accumulation of property, Professor Lantry was a failure ; but in so far as it consists in winning the admiration and gratitude of one's fellow men, he was a success. As he circulated through the State in the line of duty, many a teacher and many a citizen blessed him for bringing into their midst a wholesome literary and educational atmosphere. Many thousands will testify that his conduct, his bearing and his work left nothing to be desired. He was accounted an institute conductor of the first order of ability and worth. He came into the institute work in its transition stages — he came at a time when many were clamoring for its abolition. He did much to lead the work up out of that condition of uncertainty into its present condition of solidity and prestige. The institute cause is a success partly because Professor Lantry died at an age when men are usually in their prime. The writer knows that the professor broke his health by over-taxation in making institutes a success.

There are mistakes and offenses that can not be lightly condoned. But there are often palliating circumstances that soften the verdict and lighten the punishment. The victim of delirium is not held responsible for his language or his acts. Even the excitement of strong momentary passion will partly excuse an act that would seem heinous if committed in cold blood. Professor Lantry bore for eight years the strain of the most exacting and exhausting work known to man ; he deported himself through it all as a gentleman and a Christian. He snapped the threads of his vitality while in the line of a great duty ; he felt himself falling. He tried to avert the fall. He fell.

Poor Lantry ! is the cry that went up from all parts of the State from those who knew him. That epithet expresses accurately and *justly his whole case*. It was pitiful to see a fine strong man succumb

to overstrain. Nothing is more pitiful than to see great vigor in ruins or towering possibilities blighted. Though he could not go on, yet he had not failed of a record of rich achievement. In that remarkable last letter of his, he says that he is persuaded that many a life, by his labors and influence, has been started on a successful career. It was a remarkable letter, the letter of a remarkable man standing on the brink of eternity and looking before and after. As he turns from "life's history" it is with a dignity simply sublime, as he turns to "death's mystery" the natural awe of the prospect is modified by the eager curiosity to know. The ruling passion is strong in death. This remarkable man dying alone is impressed even with the novelty of the situation; in the passion of research he seizes note-book and pencil and records the progressive symptoms of dissolution. Out of the grave he seems to undertake to tell what it is to die. All his characteristics shine out at the supreme moment. The last utterance from his tongue was an expression of princely politeness. Hours after his death scene had begun the chambermaid called at his room to inquire if he would have the room put into order. He thanked her and requested her in felicitous phrase to leave him undisturbed a few minutes longer. Undisturbed in the absorbing business of dying. Poor Lantry! God alone can take proper account of faults. Mortals are properly enjoined to judge not. But we can pay the meed of merited praise, and we can notice traits brought out even in the fiery ordeal of death. It is noticeable that his death revealed not the slightest spark of craven fear; nor does there come up from his chamber a single note of petulance. He alludes to supreme disappointments, troubles, failures, but with a quiet way that approaches amusement, rather than petulant complaint or fierce sarcasm. Instead of losing himself in the last great ordeal, his sense of dignity and decorum seemed to approach infallibility. Whatever else may be said it must be conceded that he died largely. But it is only a large man that can die largely.

Prof. Lantry had a genial and friendly nature, and was a ready and intelligent conversationist. He was, therefore, popular wherever he went. Any one could have his ear on any subject. This caused him to deliver many a supplementary lecture off the platform, and add to the exhausting drains on his vitality. He worked hard from a conscientious desire to discharge the important duties that devolved upon him, and also from a laudable pride in his work. He liked artistic finish. But his good-nature, and his zeal, caused him to submit to drafts that were simply destructive. He was very sensitive and quick-tempered, and could say unkind things in an unguarded moment, but

he was not malicious nor suspicious. The worst things he had to say about a man he said to his face. In his calmer moments his sense of justice was strong, he spoke with care and preferred compliment to stricture. He had nothing of the sleuth-hound in him; he was on nobody's track. Except for momentary clouds, he seemed the very type of good nature, and to live in perpetual sunshine.

No farther seek his merits to disclose,
Or draw his frailties from their dread abode,
(There they alike in trembling hope repose)
The bosom of his Father, and his God.

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